

<b>SOLICITATION, OFFER AND AWARD</b>			1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700)		RATING DO-C9E	PAGE OF PAGES 1 31	
2. CONTRACT NO.		3. SOLICITATION NO. N00174-03-R-0032		4. TYPE OF SOLICITATION [ ] SEALED BID (IFB) [X] NEGOTIATED (RFP)	5. DATE ISSUED 23 May 2003	6. REQUISITION/PURCHASE NO.	
7. ISSUED BY NAVSEA INDIAN HEAD 101 STRAUSS AVE. ATTN: PATSY KRAGH 1142P KRAGHPA@IH.NA VY.MIL <del>INDIAN HEAD MD 20640 5035</del>			CODE N00174	8. ADDRESS OFFER TO (If other than Item 7) <b>See Item 7</b>		CODE	
TEL: 301/744-6669 FAX: 301/744-6670					TEL:	FAX:	
NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".							
<b>SOLICITATION</b>							
9. Sealed offers in original and <u>2</u> copies for furnishing the supplies or services in the Schedule will be received at the place specified in Item 8, or if handcarried, in the depository located in <u>BLDG. 1558, SUPPLY DEPT.</u> until <u>15 00</u> local time <u>23 Jun 2003</u> (Hour) (Date)							
CAUTION - LATE Submissions, Modifications, and Withdrawals: See Section L, Provision No. 52.214-7 or 52.215-1. All offers are subject to all terms and conditions contained in this solicitation.							
10. FOR INFORMATION CALL:		A. NAME PATSY KRAGH		B. TELEPHONE (Include area code) (NO COLLECT CALLS) 301/744-6669		C. E-MAIL ADDRESS kraghpa@ih.navy.mil	
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<b>OFFER (Must be fully completed by offeror)</b>							
NOTE: Item 12 does not apply if the solicitation includes the provisions at 52.214-16, Minimum Bid Acceptance Period.							
12. In compliance with the above, the undersigned agrees, if this offer is accepted within _____ calendar days (60 calendar days unless a different period is inserted by the offeror) from the date for receipt of offers specified above, to furnish any or all items upon which prices are offered at the price set opposite each item, delivered at the designated point(s), within the time specified in the schedule.							
13. DISCOUNT FOR PROMPT PAYMENT (See Section I, Clause No. 52.232-8)							
14. ACKNOWLEDGMENT OF AMENDMENTS (The offeror acknowledges receipt of amendments to the SOLICITATION for offerors and related documents numbered and dated):				AMENDMENT NO.		DATE	
15A. NAME AND ADDRESS OF OFFEROR		CODE	FACILITY		16. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER (Type or print)		
15B. TELEPHONE NO (Include area code)		15C. CHECK IF REMITTANCE ADDRESS IS DIFFERENT FROM ABOVE - ENTER SUCH ADDRESS IN SCHEDULE. <input type="checkbox"/>			17. SIGNATURE		18. OFFER DATE
<b>AWARD (To be completed by Government)</b>							
19. ACCEPTED AS TO ITEMS NUMBERED		20. AMOUNT		21. ACCOUNTING AND APPROPRIATION			
22. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION: <input type="checkbox"/> 10 U.S.C. 2304(c)( ) <input type="checkbox"/> 41 U.S.C. 253(c)( )				23. SUBMIT INVOICES TO ADDRESS SHOWN IN (4 copies unless otherwise specified)		ITEM	
24. ADMINISTERED BY (If other than Item 7)		CODE	25. PAYMENT WILL BE MADE BY		CODE		
26. NAME OF CONTRACTING OFFICER (Type or print)				27. UNITED STATES OF AMERICA (Signature of Contracting Officer)		28. AWARD DATE	

**IMPORTANT - Award will be made on this Form, or on Standard Form 26, or by other authorized official written notice.**

## SECTION B Supplies or Services and Prices

**NOTE: THE EFFECTIVE START DATE OF THIS CONTRACT WILL NOT BE UNTIL APRIL 01, 2004. PLEASE TAKE THIS INTO ACCOUNT WHEN PROPOSING YOUR PRICES.**

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001		10,550.00	Hundred Pounds (CWT)	\$ _____	\$ _____

PGDN MIXED ACID

FFP - PROPYLENE GLYCOL DINITRATE (PGDN) MIXED ACID IN ACCORDANCE WITH SPECIFICATION 174-115 REV 3

PURCHASE REQUEST NUMBER 2323230293150

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0002		1.00	Lot	NOT TO EXCEED	\$1,200.00

DEMURRAGE CHARGE

FFP - NOTE: THE CONTRACTOR SHALL BE ALLOWED DEMURRAGE IF THE TRUCK IS DETAINED LONGER THAN THREE (3) HOURS FOR UNLOADING.

PURCHASE REQUEST NUMBER 2323230293159

**OPTION I**

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003		10,550.00	Hundred Pounds (CWT)	\$ _____	\$ _____

PGDN MIXED ACID

FFP - PROPYLENE GLYCOL DINITRATE (PGDN) MIXED ACID IN ACCORDANCE WITH SPECIFICATION 174-115 REV 3

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0004		1.00	Lot	NOT TO EXCEED	\$1,200.00

DEMURRAGE CHARGE

FFP - NOTE: THE CONTRACTOR SHALL BE ALLOWED DEMURRAGE IF THE TRUCK IS DETAINED LONGER THAN THREE (3) HOURS FOR UNLOADING.

**OPTION II**

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0005		10,550.00	Hundred Pounds (CWT)	\$ _____	\$ _____

PGDN MIXED ACID

FFP - PROPYLENE GLYCOL DINITRATE (PGDN) MIXED ACID IN ACCORDANCE WITH SPECIFICATION 174-115 REV 3

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0006		1.00	Lot	NOT TO EXCEED	\$1,200.00

DEMURRAGE CHARGE

FFP - NOTE: THE CONTRACTOR SHALL BE ALLOWED DEMURRAGE IF THE TRUCK IS DETAINED LONGER THAN THREE (3) HOURS FOR UNLOADING.

**OPTION III**

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0007		10,550.00	Hundred Pounds (CWT)	\$ _____	\$ _____

- PGDN MIXED ACID

FFP - PROPYLENE GLYCOL DINITRATE (PGDN) MIXED ACID IN ACCORDANCE WITH SPECIFICATION 174-115 REV 3

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0008		1.00	Lot	NOT TO EXCEED	\$1,200.00

DEMURRAGE CHARGE

FFP - NOTE: THE CONTRACTOR SHALL BE ALLOWED DEMURRAGE IF THE TRUCK IS DETAINED LONGER THAN THREE (3) HOURS FOR UNLOADING.

**OPTION IV**

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0009		10,550.00	Hundred Pounds (CWT)	\$ _____	\$ _____

PGDN MIXED ACID

FFP - PROPYLENE GLYCOL DINITRATE (PGDN) MIXED ACID IN ACCORDANCE WITH SPECIFICATION 174-115 REV 3

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0010		1.00	Lot	NOT TO EXCEED	\$1,200.00

DEMURRAGE CHARGE

FFP - NOTE: THE CONTRACTOR SHALL BE ALLOWED DEMURRAGE IF THE TRUCK IS DETAINED LONGER THAN THREE (3) HOURS FOR UNLOADING.

**NOTE:** Offerors must submit a sample PGDN for lab analysis to be performed by NAVSEA, Indian Head, Md., prior to the closing date of the solicitation. The Lab analysis test is fully explained in the pre-qualification sample testing which is attached. The **sample must pass** the tests in the attached testing spec to be considered for award.

**Deliver qualification samples to the following address:**

PHYSICHEM Division, Code 310  
Building 1864, ATTN: Karrie Sandagger  
NAVSEA IHMD  
101 Strauss Avenue  
Indian Head, Md. 20640-5035

**Sample Size:**

Two (2) each 1-gallon containers  
The samples submitted shall be in a glass acid resistant bottle with Teflon closure.

**Sample Labeling:**

Label sample per MIL-STD-129 for shipment and storage. The word "sample" should be clearly marked on the sample. Also provide the Request for Bid number (RFQ), "N0174-03-R-0032", local specification number and manufacture's name and Bidder's Company name with each sample submitted.

**Certificate of Analysis:**

Each sample provided shall have a certificate of analysis.

**Material Safety Data Sheet (MSDS):**

Each sample provided shall have a MSDS.

**Sample will be waived for the supplier under the previous contact #: N00174-99-C-0031**

**52.211-8 TIME OF DELIVERY (JUN 1997)**

(a) The Government requires delivery to be made according to the following schedule:

**REQUIRED DELIVERY SCHEDULE**

**CLINS 0001, 0003, 0005, 0007 AND 0009** - 10,550 HP., SHIPMENTS SHALL BE DELIVERED WITHIN FIVE (5) DAYS FROM VERBAL NOTIFICATION

**CLINS 0002, 0004, 0006, 0008 AND 0010** - THE CONTRACTOR SHALL BE ALLOWED DEMURRAGE IF THE TRUCK IS DETAINED LONGER THAN THREE (3) HOURS FOR TESTING AND UN-LOADING.

The Government will evaluate equally, as regards time of delivery, offers that propose delivery of each quantity within the applicable delivery period specified above. Offers that propose delivery that will not clearly fall within the applicable required delivery period specified above, will be considered nonresponsive and rejected. The Government reserves the right to award under either the required delivery schedule or the proposed delivery schedule, when an offeror offers an earlier delivery schedule than required above. If the offeror proposes no other delivery schedule, the required delivery schedule above will apply.

**OFFEROR'S PROPOSED DELIVERY SCHEDULE**

ITEM NO.	QUANTITY	WITHIN DAYS AFTER DATE OF CONTRACT
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(b) Attention is directed to the Contract Award provision of the solicitation that provides that a written award or acceptance of offer mailed, or otherwise furnished to the successful offeror, results in a binding contract. The Government will mail or otherwise furnish to the offeror an award or notice of award not later than the day award is dated. Therefore, the offeror should compute the time available for performance beginning with the actual date of award, rather than the date the written notice of award is received from the Contracting Officer through the ordinary mails. However, the Government will evaluate an offer that proposes delivery based on the Contractor's date of receipt of the contract or notice of award by adding (1) five calendar days for delivery of the award through the ordinary mails, or (2) one working day if the solicitation states that the contract or notice of award will be transmitted electronically. (The term "working day" excludes weekends and U.S. Federal holidays.) If, as so computed, the offered delivery date is later than the required delivery date, the offer will be considered nonresponsive and rejected.

**52.211-16 VARIATION IN QUANTITY (APR 1984)**

(a) A variation in the quantity of any item called for by this contract will not be accepted unless the variation has been caused by conditions of loading, shipping, or packing, or allowances in manufacturing processes, and then only to the extent, if any, specified in paragraph (b) below.

(b) The permissible variation shall be limited to:

**10%** Percent increase

**10%** Percent decrease

This increase or decrease shall apply to **CLINS 0001, 0003, 0005, 0007 and 0009**.

**52.212-1 INSTRUCTIONS TO OFFERORS--COMMERCIAL ITEMS (OCT 2000)**

(a) North American Industry Classification System (NAICS) code is **(325188)** and small business size standard is **(1000 Employees)**. However, the small business size standard for a concern which submits an offer in its own name, but which proposes to furnish an item which it did not itself manufacture, is 500 employees.

(b) Submission of offers. Submit signed and dated offers to the office specified in this solicitation at or before the exact time specified in this solicitation. Offers may be submitted on the SF 1449, letterhead stationery, or as otherwise specified in the solicitation. As a minimum, offers must show--

(1) The solicitation number;

(2) The time specified in the solicitation for receipt of offers;

(3) The name, address, and telephone number of the offeror;

(4) A technical description of the items being offered in sufficient detail to evaluate compliance with the requirements in the solicitation. This may include product literature, or other documents, if necessary; **NOTE: The requirement for a sample prior to closing of the solicitation.**

(5) Terms of any express warranty;

(6) Price and any discount terms;

(7) "Remit to" address, if different than mailing address;

(8) A completed copy of the representations and certifications at FAR 52.212-3;

(9) Acknowledgment of Solicitation Amendments;

(10) Past performance information, when included as an evaluation factor, to include recent and relevant contracts for the same or similar items and other references (including contract numbers, points of contact with telephone numbers and other relevant information); and **(Past Performance Matrix and Evaluation Sheets are attached).**

(11) If the offer is not submitted on the SF 1449, include a statement specifying the extent of agreement with all terms, conditions, and provisions included in the solicitation. Offers that fail to furnish required representations or information, or reject the terms and conditions of the solicitation may be excluded from consideration.

(c) Period for acceptance of offers. The offeror agrees to hold the prices in its offer firm for 30 calendar days from the date specified for receipt of offers, unless another time period is specified in an addendum to the solicitation.

(d) Product samples. When required by the solicitation, product samples shall be submitted at or prior to the time specified for receipt of offers. Unless otherwise specified in this solicitation, these samples shall be submitted at no expense to the Government, and returned at the sender's request and expense, unless they are destroyed during preaward testing. **(See Instructions on Sample Requirement)**

(e) Multiple offers. Offerors are encouraged to submit multiple offers presenting alternative terms and conditions or commercial items for satisfying the requirements of this solicitation. Each offer submitted will be evaluated separately.

(f) Late submissions, modifications, revisions, and withdrawals of offers:

(1) Offerors are responsible for submitting offers, and any modifications, revisions, or withdrawals, so as to reach the Government office designated in the solicitation by the time specified in the solicitation. If no time is specified

in the solicitation, the time for receipt is 4:30 p.m., local time, for the designated Government office on the date that offers or revisions are due.

(2)(i) Any offer, modification, revision, or withdrawal of an offer received at the Government office designated in the solicitation after the exact time specified for receipt of offers is "late" and will not be considered unless it is received before award is made, the Contracting Officer determines that accepting the late offer would not unduly delay the acquisition; and--

(A) If it was transmitted through an electronic commerce method authorized by the solicitation, it was received at the initial point of entry to the Government infrastructure not later than 5:00 p.m. one working day prior to the date specified for receipt of offers; or

(B) There is acceptable evidence to establish that it was received at the Government installation designated for receipt of offers and was under the Government's control prior to the time set for receipt of offers; or

(C) If this solicitation is a request for proposals, it was the only proposal received.

(ii) However, a late modification of an otherwise successful offer, that makes its terms more favorable to the Government, will be considered at any time it is received and may be accepted.

(3) Acceptable evidence to establish the time of receipt at the Government installation includes the time/date stamp of that installation on the offer wrapper, other documentary evidence of receipt maintained by the installation, or oral testimony or statements of Government personnel.

(4) If an emergency or unanticipated event interrupts normal Government processes so that offers cannot be received at the Government office designated for receipt of offers by the exact time specified in the solicitation, and urgent Government requirements preclude amendment of the solicitation or other notice of an extension of the closing date, the time specified for receipt of offers will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which normal Government processes resume.

(5) Offers may be withdrawn by written notice received at any time before the exact time set for receipt of offers. Oral offers in response to oral solicitations may be withdrawn orally. If the solicitation authorizes facsimile offers, offers may be withdrawn via facsimile received at any time before the exact time set for receipt of offers, subject to the conditions specified in the solicitation concerning facsimile offers. An offer may be withdrawn in person by an offeror or its authorized representative if, before the exact time set for receipt of offers, the identity of the person requesting withdrawal is established and the person signs a receipt for the offer.

(g) Contract award (not applicable to Invitation for Bids). The Government intends to evaluate offers and award a contract without discussions with offerors. Therefore, the offeror's initial offer should contain the offeror's best terms from a price and technical standpoint. However, the Government reserves the right to conduct discussions if later determined by the Contracting Officer to be necessary. The Government may reject any or all offers if such action is in the public interest; accept other than the lowest offer; and waive informalities and minor irregularities in offers received.

(h) Multiple awards. The Government may accept any item or group of items of an offer, unless the offeror qualifies the offer by specific limitations. Unless otherwise provided in the Schedule, offers may not be submitted for quantities less than those specified. The Government reserves the right to make an award on any item for a quantity less than the quantity offered, at the unit prices offered, unless the offeror specifies otherwise in the offer.

(i) Availability of requirements documents cited in the solicitation. (1) The Index of Federal Specifications, Standards and Commercial Item Descriptions and the documents listed in it may be obtained from the General Services Administration, Federal Supply Service Bureau, Specifications Section, Suite 8100, 470 L'Enfant Plaza, SW, Washington, DC 20407 ((202) 619-8925).

(2) The DOD Index of Specifications and Standards (DODISS) and documents listed in it may be obtained from the Standardization Documents Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094 (telephone (215) 697-2569).

(i) Availability of requirements documents cited in the solicitation. (1)(i) The GSA Index of Federal Specifications, Standards and Commercial Item Descriptions, FPMR Part 101-29, and copies of specifications, standards, and commercial item descriptions cited in this solicitation may be obtained for a fee by submitting a request to--GSA Federal Supply Service Specifications Section, Suite 8100, 470 East L'Enfant Plaza, SW, Washington, DC 20407, Telephone (202) 619-8925, Facsimile (202) 619-8978.

(ii) If the General Services Administration, Department of Agriculture, or Department of Veterans Affairs issued this solicitation, a single copy of specifications, standards, and commercial item descriptions cited in this solicitation may be obtained free of charge by submitting a request to the addressee in paragraph (i)(1)(i) of this provision. Additional copies will be issued for a fee.

(2) The DoD Index of Specifications and Standards (DoDISS) and documents listed in it may be obtained from the--Department of Defense Single Stock Point (DoDSSP), Building 4, Section D, 700 Robbins Avenue, Philadelphia, PA 19111-5094, Telephone (215) 697-2667/2179, Facsimile (215) 697-1462.

(i) Automatic distribution may be obtained on a subscription basis.

(ii) Order forms, pricing information, and customer support information may be obtained--

(A) By telephone at (215) 697-2667/2179; or

(B) Through the DoDSSP Internet site at <http://assist.daps.mil>.

(3) Nongovernment (voluntary) standards must be obtained from the organization responsible for their preparation, publication, or maintenance.

(j) Data Universal Numbering System (DUNS) Number. (Applies to offers exceeding \$25,000.) The offeror shall enter, in the block with its name and address on the cover page of its offer, the annotation "DUNS" followed by the DUNS number that identifies the offeror's name and address. If the offeror does not have a DUNS number, it should contact Dun and Bradstreet to obtain one at no charge. An offeror within the United States may call 1-800-333-0505. The offeror may obtain more information regarding the DUNS number, including locations of local Dun and Bradstreet Information Services offices for offerors located outside the United States, from the Internet home page at <http://www.customerservice@dnb.com/>. If an offeror is unable to locate a local service center, it may send an e-mail to Dun and Bradstreet at [globalinfo@mail.dnb.com](mailto:globalinfo@mail.dnb.com).

## **52.212-2 EVALUATION--COMMERCIAL ITEMS (JAN 1999)**

(a) The Government will award a contract resulting from this solicitation to the responsible offeror whose offer conforming to the solicitation will be most advantageous to the Government, price and other factors considered. The following factors shall be used to evaluate offers:

☒ **Technical (Sample)**  
☒ **Past Performance**  
☒ **Price**

(b) Options. The Government will evaluate offers for award purposes by adding the total price for all options to the total price for the basic requirement. The Government may determine that an offer is unacceptable if the option prices are significantly unbalanced. Evaluation of options shall not obligate the Government to exercise the option(s).



(c) A written notice of award or acceptance of an offer, mailed or otherwise furnished to the successful offeror within the time for acceptance specified in the offer, shall result in a binding contract without further action by either party. Before the offer's specified expiration time, the Government may accept an offer (or part of an offer), whether or not there are negotiations after its receipt, unless a written notice of withdrawal is received before award.

#### **IHD 195 - PROPOSAL REQUIREMENTS (FEB 2000) (NAVSEA/IHD)**

**GENERAL INFORMATION:** Each offeror must submit an offer/proposal and other written information in strict accordance with these instructions. When evaluating an offeror the Government will consider how well the offeror complied with both the letter and spirit of these instructions. The Government will consider any failure on the part of the offeror to comply with both the letter and the spirit of these instructions to be an indication of the type of conduct it can expect during contract performance. Therefore, the Government encourages offerors to contact the Contracting Officer by telephone, facsimile transmission, e-mail, or mail in order to request an explanation of any aspect of these instructions.

The offeror shall submit the following information:

1. One (1) sample of PGDN Mixed Acid in the Quantity of Two (2) 1-gallon containers with the Material Safety Data Sheet and Certificate of Analysis.
2. Two (2) copies of the past performance information, Volume I.
3. Two (2) copies of the price proposal with completed solicitation package, Volume II.

**Volume I & II shall be provided by closing date of the solicitation to:**

Naval Surface Warfare Center  
101 Strauss Avenue, Bldg 1558  
Attn: Patsy Kragh, Code 1142P  
Indian Head MD 20640-5035

**The PGDN Mixed Acid Two (2) 1-gallon samples are to be provided by closing date of the solicitation along with a MSDS and Certificate of Analysis to:**

PHYSICHEM Division, Code 310  
Building 1864, ATTN: Karrie Sandagger  
NAVSEA IHMD  
Indian Head MD 20640-5035

**OFFERORS SHALL ADDRESS THE FOLLOWING FACTORS:** (Listed in order of importance) Information shall be submitted as detailed below.

**I. Each offeror shall submit Two (2) 1-Gallon containers of PGDN Mixed Acid with its acceptable Material Safety Data Sheet (MSDS) and Certificate of Analysis.**

**II. VOLUME I - PAST PERFORMANCE (Shall contain only Past Performance Information)**

Past performance is a measure of the degree to which an offeror, as an organization, has during the past three (3) years: (1) satisfied its customers, and (2) complies with federal, state, and local laws and regulations. The offeror shall provide a list of references using the Past Performance Matrix, (Enclosure 1), who will be able to provide information regarding the offeror's past performance during the past three (3) years regarding: (1) customer satisfaction; (2) timeliness; (3) technical success; (4) program management; (5) and the quality of products.

The offeror will submit the Past Performance Questionnaire to each of the references listed on the Past Performance Matrix, a minimum of three (3) is required. THE OFFEROR SHALL INSTRUCT THE **REFERENCES** TO **COMPLETE** THE PAST PERFORMANCE QUESTIONNAIRE AND **MAIL** THEM DIRECTLY TO:

Naval Surface Warfare Center  
101 Strauss Avenue, Bldg 1558  
Attn: Patsy Kragh, Code 1142P  
Indian Head MD 20640-5035

The offeror's selected references must be listed on the Past Performance Matrix. Failure of the references to submit the Past Performance Questionnaire to the Contract Specialist by Closing Date of the Solicitation will result in the inability of the Government to rank the offeror's past performance.

**NOTE: PAST PERFORMANCE INFORMATION & QUESTIONNAIRE SHEETS ARE ATTACHMENTS TO THE SOLICITATION.**

#### **VOLUME II - Price (with completed solicitation package)**

Although price is the least important factor, it will not be ignored. The degree of its importance will increase with the degree of equality of the offers in relation to the other factors on which selection is to be made. Price will be evaluated by the Contracts personnel to determine fair and reasonableness through the most appropriate method available.

This folder/binder shall contain (2) complete copies of the solicitation (the RFP) with all Representations/Certifications executed and pricing appropriately noted in Section B or any continuation sheets. Information should be submitted to clearly show the basis for the amount of each cost element and how the amount was developed providing sufficient information for government use in determining the proposed prices fair and reasonable.

#### **IHD 211 - BEST VALUE EVALUATION AND BASIS FOR AWARD (FFP) (MAR 2000) (NAVSEA/IHD)**

The contract resulting from this solicitation will be awarded to that responsible offeror whose offer, conforming to the solicitation, is determined most advantageous to the Government price and other factors considered. The offeror's proposal shall be in the form prescribed by this solicitation and shall contain a response to each of the areas. Proposals will be evaluated and rated against the factors listed below, in descending order of importance:

Sample of PDGN Mixed Acid  
Past Performance  
Price

If all submitted samples meet the specification, past performance and price will become more significant factors. In determining best overall value, the Government will first assess an offeror on the basis of provided sample and then compare and rank offerors on the basis of past performance. Offerors who provide an unacceptable sample will not be considered for award. Then the Government will compare the tradeoffs between offerors which provided an acceptable sample, performance and price. The offer who represents the best value will be the offeror who represents the best tradeoff between acceptable sample, superior performance and price.

#### **A. PDGN MIXED ACID SAMPLE**

1. The **two (2) 1-gallon samples** provided by the offeror will be evaluated in accordance with the Pre-Qualification Sample Testing which is attached:

## **B. PAST PERFORMANCE**

1. The Government will evaluate the quality of the offeror's past performance. This evaluation is separate and distinct from the Contracting Officer's responsibility determination. The assessment of the offeror's past performance will be used to evaluate the relative capability of the offeror and their competitors to successfully meet the requirements of the RFP. Past performance of significant and/or critical subcontractors will be considered to the extent warranted by the subcontractor's involvement in the proposed effort.

2. The Government will evaluate the quality of the offeror's past performance. This may include any aspect of past performance that is related to this contract. A record of poor past performance may be considered an indication that the offeror may be lacking in areas such as reliability, quality and customer satisfaction. However, a record of average or exceptional past performance will not result in favorable assessment of an otherwise technically deficient technical proposal. In evaluating an offeror's past performance, the Government will consider information contained in the offeror's past performance references, information obtained from other sources, including past and present customers, subcontractors and any others who may have useful information, and other past performance data available to the Government. Offerors with no past performance history will receive a neutral rating.

3. Contracting Officers will use the following adjectival definitions as guidelines in evaluating past performance:

**Excellent** - The Offeror's performance was consistently superior. The contractual performance was accomplished with few minor problems, for which corrective action taken by the Offeror was highly effective.

**Good** - The Offeror's performance was better than average. The contractual performance was accomplished with some minor problems, for which corrective actions taken by the Offeror were effective. They would be willing to do business with the Offeror again.

**Poor** - The Offeror's performance was entirely unsatisfactory and that they would not do business with the Offeror again under any circumstances. The contractual performance of the element being assessed contains problems for which the Offeror corrective actions appear to be or were ineffective.

**Neutral** - Offerors lacking relevant past performance history will receive a neutral rating for past performance. The offeror must provide the information requested above the past performance evaluation or affirmatively state that it possesses no relevant directly related or similar past performance. An offer that fails to provide the past performance information or to assert that the company has no relevant directly related or similar past performance may be considered ineligible for award.

## **C. PRICE**

I. Although price is not the most important evaluation factor, it will not be ignored. The degree of its importance will increase with the degree of equality of the proposals in relation to the other factors on which selection is to be based.

**Note: Prices shall be evaluated in accordance with FAR 52.219-4 NOTICE OF PRICE EVALUATION PREFERENCE FOR HUBZONE SMALL BUSINESS CONCERNS (JAN 1999)**

II. The Government may award a contract on the basis of initial offers received, without discussions. Therefore, each initial offer should contain the offeror's best terms from a cost/price, technical and past performance standpoint. However, if considered necessary by the contracting officer, discussions will be conducted only with those offerors determined to have a reasonable chance for award.

Factor 1 - PGDN Mixed Acid Sample

Factor 2 - Past Performance

Factor 3 - Price

The offeror's submission in response to this solicitation will be evaluated. Each factor shall be evaluated based on the merits of the information contained in the offerors' submission. A sample evaluation is provided below:

Offeror	Sample	Past Performance Rating	Price
A	Acceptable	Good	\$320,000
B	Acceptable	Excellent	\$322,000
C	Unacceptable	Good	\$300,000
D	Acceptable	Poor	\$302,000
E	0**	Good	\$330,000

\*\* Offeror did not comply with RFP instructions - was not evaluated

Once this information is tabulated, offerors will be compared making value and price tradeoffs and award will be made to the offeror that represents the Best Value to the Government. If the offeror with an acceptable sample has the highest past performance rating and also represents the lowest price then that offeror is clearly the Best Value. If an offeror with an acceptable sample has the highest past performance rating and has a higher price, then a determination must be made whether the difference in past performance value is worth the higher price. In the example the Government may award to Offeror A, Offeror B (if it could be determined whether the difference in greater value is worth the difference in price when compared to Offeror A). Offeror C would not be considered for award due to an unacceptable sample. Offeror D would not be considered for award due to a POOR past performance rating. Offeror E would not be considered for award due to not providing a sample.

### **52.212-3 OFFEROR REPRESENTATIONS AND CERTIFICATIONS--COMMERCIAL ITEMS (JUL 2002) ALTERNATE I (APR 2002)**

(a) Definitions. As used in this provision:

"Emerging small business" means a small business concern whose size is no greater than 50 percent of the numerical size standard for the NAICS code designated.

"Forced or indentured child labor" means all work or service-

(1) Exacted from any person under the age of 18 under the menace of any penalty for its nonperformance and for which the worker does not offer himself voluntarily; or

(2) Performed by any person under the age of 18 pursuant to a contract the enforcement of which can be accomplished by process of penalties.

Service-disabled veteran-owned small business concern--

(1) Means a small business concern--

(i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and

(ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.

(2) Service-disabled veteran means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

"Small business concern" means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR Part 121 and size standards in this solicitation.

Veteran-owned small business concern means a small business concern--

(1) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and

(2) The management and daily business operations of which are controlled by one or more veterans.

"Women-owned small business concern" means a small business concern--

(1) That is at least 51 percent owned by one or more women or, in the case of any publicly owned business, at least 51 percent of its stock of which is owned by one or more women; and

(2) Whose management and daily business operations are controlled by one or more women.

"Women-owned business concern" means a concern which is at least 51 percent owned by one or more women; or in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and whose management and daily business operations are controlled by one or more women.

(b) Taxpayer Identification Number (TIN) (26 U.S.C. 6109, 31 U.S.C. 7701). (Not applicable if the offeror is required to provide this information to a central contractor registration database to be eligible for award.)

(1) All offerors must submit the information required in paragraphs (b)(3) through (b)(5) of this provision to comply with debt collection requirements of 31 U.S.C. 7701(c) and 3325(d), reporting requirements of 26 U.S.C. 6041, 6041A, and 6050M, and implementing regulations issued by the Internal Revenue Service (IRS).

(2) The TIN may be used by the Government to collect and report on any delinquent amounts arising out of the offeror's relationship with the Government (31 U.S.C. 7701(c)(3)). If the resulting contract is subject to the payment reporting requirements described in FAR 4.904, the TIN provided hereunder may be matched with IRS records to verify the accuracy of the offeror's TIN.

(3) Taxpayer Identification Number (TIN).

\_\_\_ TIN:-----

\_\_\_ TIN has been applied for.

\_\_\_ TIN is not required because:

\_\_\_ Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the United States and does not have an office or place of business or a fiscal paying agent in the United States;

Offeror is an agency or instrumentality of a foreign government;

☐ Offeror is an agency or instrumentality of the Federal Government.

(4) Type of organization.

☐ Sole proprietorship;

☐ Partnership;

☐ Corporate entity (not tax-exempt);

☐ Corporate entity (tax-exempt);

☐ Government entity (Federal, State, or local);

☐ Foreign government;

☐ International organization per 26 CFR 1.6049-4;

☐ Other-----

(5) Common parent.

☐ Offeror is not owned or controlled by a common parent;

☐ Name and TIN of common parent:

Name-----

TIN-----

(c) Offerors must complete the following representations when the resulting contract is to be performed inside the United States, its territories or possessions, Puerto Rico, the Trust Territory of the Pacific Islands, or the District of Columbia. Check all that apply.

(1) Small business concern. The offeror represents as part of its offer that it ( ) is, ( ) is not a small business concern.

(2) Veteran-owned small business concern. (Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.) The offeror represents as part of its offer that it ( ) is, ( ) is not a veteran-owned small business concern.

(3) Service-disabled veteran-owned small business concern. (Complete only if the offeror represented itself as a veteran-owned small business concern in paragraph (c)(2) of this provision.) The offeror represents as part of its offer that it ( ) is, ( ) is not a service-disabled veteran-owned small business concern.

(4) Small disadvantaged business concern. (Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.) The offeror represents, for general statistical purposes, that it ( ) is, ( ) is not a small disadvantaged business concern as defined in 13 CFR 124.1002.

(5) Women-owned small business concern. (Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.) The offeror represents that it ( ) is, ( ) is not a women-owned small business concern.

Note: Complete paragraphs (c)(6) and (c)(7) only if this solicitation is expected to exceed the simplified acquisition threshold.

(6) Women-owned business concern (other than small business concern). (Complete only if the offeror is a women-owned business concern and did not represent itself as a small business concern in paragraph (c)(1) of this provision.) The offeror represents that it ( ) is, a women-owned business concern.

(7) Tie bid priority for labor surplus area concerns. If this is an invitation for bid, small business offerors may identify the labor surplus areas in which costs to be incurred on account of manufacturing or production (by offeror or first-tier subcontractors) amount to more than 50 percent of the contract price:

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(8) Small Business Size for the Small Business Competitiveness Demonstration Program and for the Targeted Industry Categories under the Small Business Competitiveness Demonstration Program. (Complete only if the offeror has represented itself to be a small business concern under the size standards for this solicitation.)

(i) (Complete only for solicitations indicated in an addendum as being set-aside for emerging small businesses in one of the four designated industry groups (DIGs).) The offeror represents as part of its offer that it ( ) is, ( ) is not an emerging small business.

(ii) (Complete only for solicitations indicated in an addendum as being for one of the targeted industry categories (TICs) or four designated industry groups (DIGs).) Offeror represents as follows:

(A) Offeror's number of employees for the past 12 months (check the Employees column if size standard stated in the solicitation is expressed in terms of number of employees); or

(B) Offeror's average annual gross revenue for the last 3 fiscal years (check the Average Annual Gross Number of Revenues column if size standard stated in the solicitation is expressed in terms of annual receipts).

(Check one of the following):

Average Annual

Number of Employees Gross Revenues

\_\_\_ 50 or fewer \_\_\_ \$1 million or less

\_\_\_ 51 - 100 \_\_\_ \$1,000,001 - \$2 million

\_\_\_ 101 - 250 \_\_\_ \$2,000,001 - \$3.5 million

\_\_\_ 251 - 500 \_\_\_ \$3,500,001 - \$5 million

\_\_\_ 501 - 750 \_\_\_ \$5,000,001 - \$10 million

\_\_\_ 751 - 1,000 \_\_\_ \$10,000,001 - \$17 million

\_\_\_ Over 1,000 \_\_\_ Over \$17 million

(9) (Complete only if the solicitation contains the clause at FAR 52.219-23, Notice of Price Evaluation Adjustment for Small Disadvantaged Business Concerns or FAR 52.219-25, Small Disadvantaged Business Participation Program-Disadvantaged Status and Reporting, and the offeror desires a benefit based on its disadvantaged status.)

(i) General. The offeror represents that either--

(A) It ( ) is, ( ) is not certified by the Small Business Administration as a small disadvantaged business concern and identified, on the date of this representation, as a certified small disadvantaged business concern in the database maintained by the Small Business Administration (PRO-Net), and that no material change in disadvantaged ownership and control has occurred since its certification, and, where the concern is owned by one or more individuals claiming disadvantaged status, the net worth of each individual upon whom the certification is based does not exceed \$750,000 after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); or

(B) It ( ) has, ( ) has not submitted a completed application to the Small Business Administration or a Private Certifier to be certified as a small disadvantaged business concern in accordance with 13 CFR 124, Subpart B, and a decision on that application is pending, and that no material change in disadvantaged ownership and control has occurred since its application was submitted.

(ii) Joint Ventures under the Price Evaluation Adjustment for Small Disadvantaged Business Concerns. The offeror represents, as part of its offer, that it is a joint venture that complies with the requirements in 13 CFR 124.1002(f) and that the representation in paragraph (c)(9)(i) of this provision is accurate for the small disadvantaged business concern that is participating in the joint venture. (The offeror shall enter the name of the small disadvantaged business concern that is participating in the joint venture: \_\_\_\_\_.)

(10) (i) It ( ) is, ( ) is not a HUBZone small business concern listed, on the date of this representation, on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration, and no material change in ownership and control, principal office, or HUBZone employee percentage has occurred since it was certified by the Small Business Administration in accordance with 13 CFR part 126; and

(ii) It ( ) is, ( ) is not a joint venture that complies with the requirements of 13 CFR part 126, and the representation in paragraph (c)(10)(i) of this provision is accurate for the HUBZone small business concern or concerns that are participating on the joint venture. (The offeror shall enter the name or names of the HUBZone small business concern or concerns that are participating in the joint venture: \_\_\_\_\_.) Each HUBZone small business concern participating in the joint venture shall submit a separate signed copy of the HUBZone representation.

(11) (Complete if the offeror has represented itself as disadvantaged in paragraph (c)(4) or (c)(9) of this provision.) (The offeror shall check the category in which its ownership falls):

\_\_\_\_ Black American.

\_\_\_\_ Hispanic American.

\_\_\_\_ Native American (American Indians, Eskimos, Aleuts, or Native Hawaiians).

\_\_\_\_ Asian-Pacific American (persons with origins from Burma, Thailand, Malaysia, Indonesia, Singapore, Brunei, Japan, China, Taiwan, Laos, Cambodia (Kampuchea), Vietnam, Korea, The Philippines, U.S. Trust Territory of the Pacific Islands (Republic of Palau), Republic of the Marshall Islands, Federated States of Micronesia, the Commonwealth of the Northern Mariana Islands, Guam, Samoa, Macao, Hong Kong, Fiji, Tonga, Kiribati, Tuvalu, or Nauru).

\_\_\_\_ Subcontinent Asian (Asian-Indian) American (persons with origins from India, Pakistan, Bangladesh, Sri Lanka, Bhutan, the Maldives Islands, or Nepal).

\_\_\_\_ Individual/concern, other than one of the preceding.

(d) Representations required to implement provisions of Executive Order 11246--

(1) Previous Contracts and Compliance. The offeror represents that--

(i) It ( ) has, ( ) has not, participated in a previous contract or subcontract subject either to the Equal Opportunity clause of this solicitation; and



(ii) It ( ) has, ( ) has not, filed all required compliance reports.

(2) Affirmative Action Compliance. The offeror represents that--

(i) It ( ) has developed and has on file, ( ) has not developed and does not have on file, at each establishment, affirmative action programs required by rules and regulations of the Secretary of Labor (41 CFR Subparts 60-1 and 60-2), or

(ii) It ( ) has not previously had contracts subject to the written affirmative action programs requirement of the rules and regulations of the Secretary of Labor.

(e) Certification Regarding Payments to Influence Federal Transactions (31 U.S.C. 1352). (Applies only if the contract is expected to exceed \$100,000.) By submission of its offer, the offeror certifies to the best of its knowledge and belief that no Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress or an employee of a Member of Congress on his or her behalf in connection with the award of any resultant contract.

(f) Buy American Act Certificate. (Applies only if the clause at Federal Acquisition Regulation (FAR) 52.225-1, Buy American Act--Supplies, is included in this solicitation.)

(1) The offeror certifies that each end product, except those listed in paragraph (f)(2) of this provision, is a domestic end product as defined in the clause of this solicitation entitled ``Buy American Act--Balance of Payments Program--Supplies" and that the offeror has considered components of unknown origin to have been mined, produced, or manufactured outside the United States. The offeror shall list as foreign end products those end products manufactured in the United States that do not qualify as domestic end products.

(2) Foreign End Products:

Line Item No.:-----

Country of Origin:-----

(List as necessary)

(3) The Government will evaluate offers in accordance with the policies and procedures of FAR Part 25.

(g)(1) Buy American Act--North American Free Trade Agreement--Israeli Trade Act Certificate. (Applies only if the clause at FAR 52.225-3, Buy American Act--North American Free Trade Agreement--Israeli Trade Act, is included in this solicitation.)

(i) The offeror certifies that each end product, except those listed in paragraph (g)(1)(ii) or (g)(1)(iii) of this provision, is a domestic end product as defined in the clause of this solicitation entitled ``Buy American Act--North American Free Trade Agreement--Israeli Trade Act" and that the offeror has considered components of unknown origin to have been mined, produced, or manufactured outside the United States.

(ii) The offeror certifies that the following supplies are NAFTA country end products or Israeli end products as defined in the clause of this solicitation entitled ``Buy American Act--North American Free Trade Agreement--Israeli Trade Act":

NAFTA Country or Israeli End Products

Line Item No.:-----

Country of Origin:-----

(List as necessary)

(iii) The offeror shall list those supplies that are foreign end products (other than those listed in paragraph (g)(1)(ii) of this provision) as defined in the clause of this solicitation entitled ``Buy American Act--North American Free Trade Agreement--Israeli Trade Act--Balance of Payments Program." The offeror shall list as other foreign end products those end products manufactured in the United States that do not qualify as domestic end products.

Other Foreign End Products

Line Item No.:-----

Country of Origin:-----

(List as necessary)

(iv) The Government will evaluate offers in accordance with the policies and procedures of FAR Part 25.

(2) (2) Buy American Act--North American Free Trade Agreements--Israeli Trade Act Certificate, Alternate I (May 2002). If Alternate I to the clause at FAR 52.225-3 is included in this solicitation, substitute the following paragraph (g)(1)(ii) for paragraph (g)(1)(ii) of the basic provision:

(g)(1)(ii) The offeror certifies that the following supplies are Canadian end products as defined in the clause of this solicitation entitled "Buy American Act--North American Free Trade Agreement--Israeli Trade Act":

Canadian End Products:

Line Item No.

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(List as necessary)

(3) Buy American Act--North American Free Trade Agreements--Israeli Trade Act Certificate, Alternate II (May 2002). If Alternate II to the clause at FAR 52.225-3 is included in this solicitation, substitute the following paragraph (g)(1)(ii) for paragraph (g)(1)(ii) of the basic provision:

(g)(1)(ii) The offeror certifies that the following supplies are Canadian end products or Israeli end products as defined in the clause of this solicitation entitled "Buy American Act--North American Free Trade Agreement--Israeli Trade Act":

Canadian or Israeli End Products:

Line Item No.

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Country of Origin

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(List as necessary)

(4) Trade Agreements Certificate. (Applies only if the clause at FAR 52.225-5, Trade Agreements, is included in this solicitation.)

(i) The offeror certifies that each end product, except those listed in paragraph (g)(4)(ii) of this provision, is a U.S.-made, designated country, Caribbean Basin country, or NAFTA country end product, as defined in the clause of this solicitation entitled "Trade Agreements."

(ii) The offeror shall list as other end products those end products that are not U.S.-made, designated country, Caribbean Basin country, or NAFTA country end products.

Other End Products

Line Item No.:-----

Country of Origin:-----

(List as necessary)

(iii) The Government will evaluate offers in accordance with the policies and procedures of FAR Part 25. For line items subject to the Trade Agreements Act, the Government will evaluate offers of U.S.-made, designated country, Caribbean Basin country, or NAFTA country end products without regard to the restrictions of the Buy American Act. The Government will consider for award only offers of U.S.-made, designated country, Caribbean Basin country, or NAFTA country end products unless the Contracting Officer determines that there are no offers for such products or that the offers for such products are insufficient to fulfill the requirements of the solicitation.

(h) Certification Regarding Debarment, Suspension or Ineligibility for Award (Executive Order 12549). (Applies only if the contract value is expected to exceed the simplified acquisition threshold.) The offeror certifies, to the best of its knowledge and belief, that the offeror and/or any of its principals--

(1) ( ) Are, ( ) are not presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency; and

(2) ( ) Have, ( ) have not, within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: Commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a Federal, state or local government contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or Commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and

(3) ( ) Are, ( ) are not presently indicted for, or otherwise criminally or civilly charged by a Government entity with, commission of any of these offenses.

(i) Certification Regarding Knowledge of Child Labor for Listed End Products (Executive Order 13126). [The Contracting Officer must list in paragraph (i)(1) any end products being acquired under this solicitation that are included in the List of Products Requiring Contractor Certification as to Forced or Indentured Child Labor, unless excluded at 22.1503(b).]

(1) Listed end products.

Listed End Product

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Listed Countries of Origin

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(2) Certification. (If the Contracting Officer has identified end products and countries of origin in paragraph (i)(1) of this provision, then the offeror must certify to either (i)(2)(i) or (i)(2)(ii) by checking the appropriate block.)

( ) (i) The offeror will not supply any end product listed in paragraph (i)(1) of this provision that was mined, produced, or manufactured in the corresponding country as listed for that product.

( ) (ii) The offeror may supply an end product listed in paragraph (i)(1) of this provision that was mined, produced, or manufactured in the corresponding country as listed for that product. The offeror certifies that it has made a good faith effort to determine whether forced or indentured child labor was used to mine, produce, or manufacture any such end product furnished under this contract. On the basis of those efforts, the offeror certifies that it is not aware of any such use of child labor.

#### **52.212-4 CONTRACT TERMS AND CONDITIONS-- COMMERCIAL ITEMS (FEB 2002)**

(a) Inspection/Acceptance. The Contractor shall only tender for acceptance those items that conform to the requirements of this contract. The Government reserves the right to inspect or test any supplies or services that have been tendered for acceptance. The Government may require repair or replacement of nonconforming supplies or reperformance of nonconforming services at no increase in contract price. The Government must exercise its post-acceptance rights (1) within a reasonable time after the defect was discovered or should have been discovered; and (2) before any substantial change occurs in the condition of the item, unless the change is due to the defect in the item.

(b) Assignment. The Contractor or its assignee may assign its rights to receive payment due as a result of performance of this contract to a bank, trust company, or other financing institution, including any Federal lending agency in accordance with the Assignment of Claims Act (31 U.S.C. 3727). However, when a third party makes payment (e.g., use of the Governmentwide commercial purchase card), the Contractor may not assign its rights to receive payment under this contract.

(c) Changes. Changes in the terms and conditions of this contract may be made only by written agreement of the parties.

(d) Disputes. This contract is subject to the Contract Disputes Act of 1978, as amended (41 U.S.C. 601-613). Failure of the parties to this contract to reach agreement on any request for equitable adjustment, claim, appeal or action arising under or relating to this contract shall be a dispute to be resolved in accordance with the clause at FAR 52.233-1, Disputes, which is incorporated herein by reference. The Contractor shall proceed diligently with performance of this contract, pending final resolution of any dispute arising under the contract.

(e) Definitions. The clause at FAR 52.202-1, Definitions, is incorporated herein by reference.

(f) Excusable delays. The Contractor shall be liable for default unless nonperformance is caused by an occurrence beyond the reasonable control of the Contractor and without its fault or negligence such as, acts of God or the public enemy, acts of the Government in either its sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, unusually severe weather, and delays of common carriers. The Contractor shall notify the Contracting Officer in writing as soon as it is reasonably possible after the commencement or any excusable delay, setting forth the full particulars in connection therewith, shall remedy such occurrence with all reasonable dispatch and shall promptly give written notice to the Contracting Officer of the cessation of such occurrence.

(g) Invoice. (1) The Contractor shall submit an original invoice and three copies (or electronic invoice, if authorized) to the address designated in the contract to receive invoices. An invoice must include--

(i) Name and address of the Contractor;

- (ii) Invoice date and number;
  - (iii) Contract number, contract line item number and, if applicable, the order number;
  - (iv) Description, quantity, unit of measure, unit price and extended price of the items delivered;
  - (v) Shipping number and date of shipment, including the bill of lading number and weight of shipment if shipped on Government bill of lading;
  - (vi) Terms of any discount for prompt payment offered;
  - (vii) Name and address of official to whom payment is to be sent;
  - (viii) Name, title, and phone number of person to notify in event of defective invoice; and
  - (ix) Taxpayer Identification Number (TIN). The Contractor shall include its TIN on the invoice only if required elsewhere in this contract.
  - (x) Electronic funds transfer (EFT) banking information.
- (A) The Contractor shall include EFT banking information on the invoice only if required elsewhere in this contract.
- (B) If EFT banking information is not required to be on the invoice, in order for the invoice to be a proper invoice, the Contractor shall have submitted correct EFT banking information in accordance with the applicable solicitation provision, contract clause (e.g., 52.232-33, Payment by Electronic Funds Transfer--Central Contractor Registration, or 52.232-34, Payment by Electronic Funds Transfer--Other Than Central Contractor Registration), or applicable agency procedures.
- (C) EFT banking information is not required if the Government waived the requirement to pay by EFT.
- (2) Invoices will be handled in accordance with the Prompt Payment Act (31 U.S.C. 3903) and Office of Management and Budget (OMB) prompt payment regulations at 5 CFR part 1315.
- (h) Patent indemnity. The Contractor shall indemnify the Government and its officers, employees and agents against liability, including costs, for actual or alleged direct or contributory infringement of, or inducement to infringe, any United States or foreign patent, trademark or copyright, arising out of the performance of this contract, provided the Contractor is reasonably notified of such claims and proceedings.
- (i) Payment. Payment shall be made for items accepted by the Government that have been delivered to the delivery destinations set forth in this contract. The Government will make payment in accordance with the Prompt Payment Act (31 U.S.C. 3903) and OMB prompt payment regulations at 5 CFR part 1315. If the Government makes payment by Electronic Funds Transfer (EFT), see 52.212-5(b) for the appropriate EFT clause. In connection with any discount offered for early payment, time shall be computed from the date of the invoice. For the purpose of computing the discount earned, payment shall be considered to have been made on the date which appears on the payment check or the specified payment date if an electronic funds transfer payment is made.
- (j) Risk of loss. Unless the contract specifically provides otherwise, risk of loss or damage to the supplies provided under this contract shall remain with the Contractor until, and shall pass to the Government upon:
- (1) Delivery of the supplies to a carrier, if transportation is f.o.b. origin; or
  - (2) Delivery of the supplies to the Government at the destination specified in the contract, if transportation is f.o.b. destination.

(k) Taxes. The contract price includes all applicable Federal, State, and local taxes and duties.

(l) Termination for the Government's convenience. The Government reserves the right to terminate this contract, or any part hereof, for its sole convenience. In the event of such termination, the Contractor shall immediately stop all work hereunder and shall immediately cause any and all of its suppliers and subcontractors to cease work. Subject to the terms of this contract, the Contractor shall be paid a percentage of the contract price reflecting the percentage of the work performed prior to the notice of termination, plus reasonable charges the Contractor can demonstrate to the satisfaction of the Government using its standard record keeping system, have resulted from the termination. The Contractor shall not be required to comply with the cost accounting standards or contract cost principles for this purpose. This paragraph does not give the Government any right to audit the Contractor's records. The Contractor shall not be paid for any work performed or costs incurred which reasonably could have been avoided.

(m) Termination for cause. The Government may terminate this contract, or any part hereof, for cause in the event of any default by the Contractor, or if the Contractor fails to comply with any contract terms and conditions, or fails to provide the Government, upon request, with adequate assurances of future performance. In the event of termination for cause, the Government shall not be liable to the Contractor for any amount for supplies or services not accepted, and the Contractor shall be liable to the Government for any and all rights and remedies provided by law. If it is determined that the Government improperly terminated this contract for default, such termination shall be deemed a termination for convenience.

(n) Title. Unless specified elsewhere in this contract, title to items furnished under this contract shall pass to the Government upon acceptance, regardless of when or where the Government takes physical possession.

(o) Warranty. The Contractor warrants and implies that the items delivered hereunder are merchantable and fit for use for the particular purpose described in this contract.

(p) Limitation of liability. Except as otherwise provided by an express or implied warranty, the Contractor will not be liable to the Government for consequential damages resulting from any defect or deficiencies in accepted items.

(q) Other compliances. The Contractor shall comply with all applicable Federal, State and local laws, executive orders, rules and regulations applicable to its performance under this contract.

(r) Compliance with laws unique to Government contracts. The Contractor agrees to comply with 31 U.S.C. 1352 relating to limitations on the use of appropriated funds to influence certain Federal contracts; 18 U.S.C. 431 relating to officials not to benefit; 40 U.S.C. 327, et seq., Contract Work Hours and Safety Standards Act; 41 U.S.C. 51-58, Anti-Kickback Act of 1986; 41 U.S.C. 265 and 10 U.S.C. 2409 relating to whistleblower protections; 49 U.S.C. 40118, Fly American; and 41 U.S.C. 423 relating to procurement integrity.

(s) Order of precedence. Any inconsistencies in this solicitation or contract shall be resolved by giving precedence in the following order: (1) the schedule of supplies/services; (2) the Assignments, Disputes, Payments, Invoice, Other Compliances, and Compliance with Laws Unique to Government Contracts paragraphs of this clause; (3) the clause at 52.212-5; (4) addenda to this solicitation or contract, including any license agreements for computer software; (5) solicitation provisions if this is a solicitation; (6) other paragraphs of this clause; (7) the Standard Form 1449; (8) other documents, exhibits, and attachments; and (9) the specification.

(End of clause)

#### **52.212-5 CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS--COMMERCIAL ITEMS (APR 2003)**

(a) The Contractor shall comply with the following FAR clauses, which are incorporated in this contract by reference, to implement provisions of law or executive orders applicable to acquisitions of commercial items:

(1) 52.222-3, Convict Labor (E.O. 11755).

(2) 52.233-3, Protest after Award (31 U.S.C. 3553).

(b) The Contractor shall comply with the FAR clauses in this paragraph (b) that the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or Executive orders applicable to acquisitions of commercial items or components:

\_\_\_ (1) 52.203-6, Restrictions on Subcontractor Sales to the Government, with Alternate I (41 U.S.C. 253g and 10 U.S.C. 2402).

\_\_\_ (2) 52.219-3, Notice of HUBZone Small Business Set-Aside (Jan 1999).

\_X\_ (3) 52.219-4, Notice of Price Evaluation Preference for HUBZone Small Business Concerns (Jan 1999) (if the offeror elects to waive the preference, it shall so indicate in its offer).

\_\_\_ (4) (i) 52.219-5, Very Small Business Set-Aside (Pub. L. 103-403, section 304, Small Business Reauthorization and Amendments Act of 1994).

\_\_\_ (ii) Alternate I to 52.219-5.

\_\_\_ (iii) Alternate II to 52.219-5.

\_X\_ (5) 52.219-8, Utilization of Small Business Concerns (15 U.S.C. 637 (d)(2) and (3)).

\_\_\_ (6) 52.219-9, Small Business Subcontracting Plan (15 U.S.C. 637 (d)(4)).

\_\_\_ (7) 52.219-14, Limitations on Subcontracting (15 U.S.C. 637(a)(14)).

\_\_\_ (8)(i) 52.219-23, Notice of Price Evaluation Adjustment for Small Disadvantaged Concerns (Pub. L. 103-355, section 7102, and 10 U.S.C. 2323) (if the offeror elects to waive the adjustment, it shall so indicate in its offer).

\_\_\_ (ii) Alternate I of 52.219-23.

\_\_\_ (9) 52.219-25, Small Disadvantaged Business Participation Program--Disadvantaged Status and Reporting (Pub. L. 103-355, section 7102, and 10 U.S.C. 2323).

\_\_\_ (10) 52.219-26, Small Disadvantaged Business Participation Program--Incentive Subcontracting (Pub. L. 103-355, section 7102, and 10 U.S.C. 2323).

\_\_\_ (11) 52.222-21, Prohibition of Segregated Facilities (Feb 1999).

\_X\_ (12) 52.222-26, Equal Opportunity (E.O. 11246).

\_X\_ (13) 52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era and Other Eligible Veterans (38 U.S.C. 4212).

\_\_\_ (14) 52.222-36, Affirmative Action for Workers with Disabilities (29 U.S.C. 793).

\_\_\_ (15) 52.222-37, Employment Reports on Special Disabled Veterans, Veterans of the Vietnam Era and Other Eligible Veterans (38 U.S.C. 4212).

\_\_\_ (16) 52.222-19, Child Labor--Cooperation with Authorities and Remedies (E.O. 13126).

\_\_\_\_ (17)(i) 52.223-9, Estimate of Percentage of Recovered Material Content for EPA-Designated Products (42 U.S.C. 6962(c)(3)(A)(ii)).

\_\_\_\_ (ii) Alternate I of 52.223-9 (42 U.S.C. 6962(i)(2)(C)).

\_\_\_\_ (18) 52.225-1, Buy American Act--Supplies (41 U.S.C. 10a-10d).

\_\_\_\_ (19)(i) 52.225-3, Buy American Act--North American Free Trade Agreement--Israeli Trade Act (41 U.S.C. 10a-10d, 19 U.S.C. 3301 note, 19 U.S.C. 2112 note).

\_\_\_\_ (ii) Alternate I of 52.225-3.

\_\_\_\_ (iii) Alternate II of 52.225-3.

\_\_\_\_ (20) 52.225-5, Trade Agreements (19 U.S.C. 2501, et seq., 19 U.S.C. 3301 note).

\_\_\_\_ (21) 52.225-13, Restriction on Certain Foreign Purchases (E.O. 12722, 12724, 13059, 13067, 13121, and 13129).

\_\_\_\_ (22) 52.225-15, Sanctioned European Union Country End Products (E.O. 12849).

\_\_\_\_ (23) 52.225-16, Sanctioned European Union Country Services (E.O.12849).

  X   (24) 52.232-33, Payment by Electronic Funds Transfer--Central Contractor Registration (31 U.S.C. 3332).

\_\_\_\_ (25) 52.232-34, Payment by Electronic Funds Transfer--Other than Central Contractor Registration (31 U.S.C. 3332).

\_\_\_\_ (26) 52.232-36, Payment by Third Party (31 U.S.C. 3332).

\_\_\_\_ (27) 52.239-1, Privacy or Security Safeguards (5 U.S.C. 552a).

\_\_\_\_ (28) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (46 U.S.C. 1241).

(c) The Contractor shall comply with the FAR clauses in this paragraph (c), applicable to commercial services, which the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or executive orders applicable to acquisitions of commercial items or components:

(Contracting Officer check as appropriate.)

\_\_\_\_ (1) 52.222-41, Service Contract Act of 1965, As amended (41 U.S.C. 351, et. seq.).

\_\_\_\_ (2) 52.222-42, Statement of Equivalent Rates for Federal Hires (29 U.S.C. 206 and 41 U.S.C. 351, et. seq.).

\_\_\_\_ (3) 52.222-43, Fair Labor Standards Act and Service Contract Act -- Price Adjustment (Multiple Year and Option Contracts) (29 U.S.C.206 and 41 U.S.C. 351, et seq.).

\_\_\_\_ (4) 52.222-44, Fair Labor Standards Act and Service Contract Act - Price Adjustment (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).

\_\_\_\_ (5) 52.222-47, SCA Minimum Wages and Fringe Benefits Applicable to Successor Contract Pursuant to Predecessor Contractor Collective Bargaining Agreement (CBA) (41 U.S.C. 351, et seq.).



(d) Comptroller General Examination of Record. The Contractor shall comply with the provisions of this paragraph (d) if this contract was awarded using other than sealed bid, is in excess of the simplified acquisition threshold, and does not contain the clause at 52.215-2, Audit and Records--Negotiation.

(1) The Comptroller General of the United States, or an authorized representative of the Comptroller General, shall have access to and right to examine any of the Contractor's directly pertinent records involving transactions related to this contract.

(2) The Contractor shall make available at its offices at all reasonable times the records, materials, and other evidence for examination, audit, or reproduction, until 3 years after final payment under this contract or for any shorter period specified in FAR Subpart 4.7, Contractor Records Retention, of the other clauses of this contract. If this contract is completely or partially terminated, the records relating to the work terminated shall be made available for 3 years after any resulting final termination settlement. Records relating to appeals under the disputes clause or to litigation or the settlement of claims arising under or relating to this contract shall be made available until such appeals, litigation, or claims are finally resolved.

(3) As used in this clause, records include books, documents, accounting procedures and practices, and other data, regardless of type and regardless of form. This does not require the Contractor to create or maintain any record that the Contractor does not maintain in the ordinary course of business or pursuant to a provision of law.

(e) Notwithstanding the requirements of the clauses in paragraphs (a), (b), (c) or (d) of this clause, the Contractor is not required to include any FAR clause, other than those listed below (and as may be required by an addenda to this paragraph to establish the reasonableness of prices under Part 15), in a subcontract for commercial items or commercial components--

(1) 52.222-26, Equal Opportunity (E.O. 11246);

(2) 52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era and Other Eligible Veterans (38 U.S.C. 4212);

(3) 52.222-36, Affirmative Action for Workers with Disabilities (29 U.S.C. 793);

(4) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (46 U.S.C. Appx 1241 and 10 U.S.C. 2631) (flow down required in accordance with paragraph (d) of FAR clause 52.247-64); and

(5) 52.222-41, Service Contract Act of 1965, As Amended (41 U.S.C. 351, et seq.).

#### **52.217-7 OPTION FOR INCREASED QUANTITY--SEPARATELY PRICED LINE ITEM (MAR 1989)**

The Government may require the delivery of the numbered line item, identified in the Schedule as an option item, in the quantity and at the price stated in the Schedule. The Contracting Officer may exercise the option by written notice to the Contractor within **WITHIN 60 DAYS PRIOR TO EXERCISE OF OPTION**. Delivery of added items shall continue at the same rate that like items are called for under the contract, unless the parties otherwise agree.

#### **52.223-3 HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA (JAN 1997)**

(a) "Hazardous material", as used in this clause, includes any material defined as hazardous under the latest version of Federal Standard No. 313 (including revisions adopted during the term of the contract).

(b) The offeror must list any hazardous material, as defined in paragraph (a) of this clause, to be delivered under this contract. The hazardous material shall be properly identified and include any applicable identification number, such

as National Stock Number or Special Item Number. This information shall also be included on the Material Safety Data Sheet submitted under this contract.

Material (If none, insert "None")	Identification No.
_____	_____
_____	_____
_____	_____

(c) This list must be updated during performance of the contract whenever the Contractor determines that any other material to be delivered under this contract is hazardous.

(d) The apparently successful offeror agrees to submit, for each item as required prior to award, a Material Safety Data Sheet, meeting the requirements of 29 CFR 1910.1200(g) and the latest version of Federal Standard No. 313, for all hazardous material identified in paragraph (b) of this clause. Data shall be submitted in accordance with Federal Standard No. 313, whether or not the apparently successful offeror is the actual manufacturer of these items. Failure to submit the Material Safety Data Sheet prior to award may result in the apparently successful offeror being considered nonresponsible and ineligible for award.

(e) If, after award, there is a change in the composition of the item(s) or a revision to Federal Standard No. 313, which renders incomplete or inaccurate the data submitted under paragraph (d) of this clause, the Contractor shall promptly notify the Contracting Officer and resubmit the data.

(f) Neither the requirements of this clause nor any act or failure to act by the Government shall relieve the Contractor of any responsibility or liability for the safety of Government, Contractor, or subcontractor personnel or property.

(g) Nothing contained in this clause shall relieve the Contractor from complying with applicable Federal, State, and local laws, codes, ordinances, and regulations (including the obtaining of licenses and permits) in connection with hazardous material.

(h) The Government's rights in data furnished under this contract with respect to hazardous material are as follows:

(1) To use, duplicate and disclose any data to which this clause is applicable. The purposes of this right are to--

(i) Apprise personnel of the hazards to which they may be exposed in using, handling, packaging, transporting, or disposing of hazardous materials;

(ii) Obtain medical treatment for those affected by the material; and

(iii) Have others use, duplicate, and disclose the data for the Government for these purposes.

(2) To use, duplicate, and disclose data furnished under this clause, in accordance with subparagraph (h)(1) of this clause, in precedence over any other clause of this contract providing for rights in data.

(3) The Government is not precluded from using similar or identical data acquired from other sources.

**252.223-7001 HAZARD WARNING LABELS (DEC 1991)**

(a) "Hazardous material," as used in this clause, is defined in the Hazardous Material Identification and Material Safety Data clause of this contract.

(b) The Contractor shall label the item package (unit container) of any hazardous material to be delivered under this contract in accordance with the Hazard Communication Standard (29 CFR 1910.1200 et seq). The Standard requires that the hazard warning label conform to the requirements of the standard unless the material is otherwise subject to the labeling requirements of one of the following statutes:

(1) Federal Insecticide, Fungicide and Rodenticide Act;

(2) Federal Food, Drug and Cosmetics Act;

(3) Consumer Product Safety Act;

(4) Federal Hazardous Substances Act; or

(5) Federal Alcohol Administration Act.

(c) The Offeror shall list which hazardous material listed in the Hazardous Material Identification and Material Safety Data clause of this contract will be labeled in accordance with one of the Acts in paragraphs (b)(1) through (5) of this clause instead of the Hazard Communication Standard. Any hazardous material not listed will be interpreted to mean that a label is required in accordance with the Hazard Communication Standard.

MATERIAL (If None, Insert "None.")

ACT

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(d) The apparently successful Offeror agrees to submit, before award, a copy of the hazard warning label for all hazardous materials not listed in paragraph (c) of this clause. The Offeror shall submit the label with the Material Safety Data Sheet being furnished under the Hazardous Material Identification and Material Safety Data clause of this contract.

(e) The Contractor shall also comply with MIL-STD-129, Marking for Shipment and Storage (including revisions adopted during the term of this contract).

**NAPS 5252.232-9000 SUBMISSION OF INVOICES (FIXED PRICE) (JUL 1992)**

(a) "Invoice" as used in this clause does not include contractor requests for progress payments.

(b) The contractor shall submit original invoices with copies to the address identified in the- solicitation/ contract award form (SF 26-Block 10; SF 33-Block 23; SF 1447-Block 14), unless delivery orders are applicable, in which case invoices will be segregated by individual order and submitted to the address specified in the order (DD 1155-Block 13 or SF 26-Block 10).

(c) The use of copies of the Material Inspection and Receiving Report (MIRR), DD Form 250, as an invoice is encouraged. DFARS Appendix F-306 provides instructions for such use. Copies of the MIRR used as an invoice are in addition to the standard distribution stated in DFARS F-401.

(d) In addition to the requirements of the Prompt Payment clause of this contract, the contractor shall cite on each invoice the contract line item number (CLIN); the contract subline item number (SLIN), if applicable; the accounting classification reference number (ACRN) as identified on the financial accounting data sheets, and the

payment terms.

(e) The contractor shall prepare:

- ☐ a separate invoice for each activity designated to receive the supplies or services.
- ☐ a consolidated invoice covering all shipments delivered under an individual order.
- ☒ either of the above.

(f) If acceptance is at origin, the contractor shall submit the MIRR or other acceptance verification directly to the designated payment office. If acceptance is at destination, the consignee will forward acceptance verification to the designated payment office.

#### INVOICE MAILING INSTRUCTIONS

**MAIL INVOICES TO:**                      **NAVSEA INDIAN HEAD DIVISION  
COMPTROLLER DEPARTMENT, CODE 021  
ACCOUNTING AND FINANCE DIVISION, BUILDING 1601  
101 STRAUSS AVENUE  
INDIAN HEAD, MD. 20640-5035**

**NOTE:** It is extremely important that your invoice be mailed to the address cited above. **FAILURE TO DO SO WILL RESULT IN A DELAY OF YOUR PAYMENT.** Informational copies of the invoice may be mailed to the contract administrator and/or the technical point of contact; however, the official invoice must be mailed to the Indian Head Comptroller Department.

#### **IHD 61 - PLACE OF DELIVERY: DESTINATION (NAVSEA/IHD) FEB 2000**

(a) The articles to be furnished hereunder shall be delivered all transportation charges paid by the contractor to:

**SCALES, BUILDING #1104**  
Indian Head Division  
Naval Sea Systems Command  
101 Strauss Avenue  
Indian Head, Maryland 20640-5035

(b) Bids submitted on a basis other than F.O.B. Destination will be rejected as non-responsive and proposals may be deemed unacceptable.

#### **IHD 88 - CERTIFICATE OF ANALYSIS (NAVSEA/IHD) FEB 2000**

(a) A certificate of analysis/test showing that the material has been sampled and/or tested and found to be within the minimum requirements of the specification/drawing/contract shall be prepared. The certificate shall be ( ) maintained by the contractor for a minimum of one (1) year from the completion of the order/contract or (X) forwarded to this activity; one (1) copy to accompany the shipment (in the packing list envelope) and one (1) copy mailed to arrive at time of receipt of the shipment (mark the certificate to the attention of: **Code 2320F**).

(b) Each certificate must be traceable to the material covered by the certificate. The certificate shall state, above the signature of a legally authorized representative of the company the following:

This certification concerns a matter within the jurisdiction of an agency of the United States and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code, Section 1001.

(c) Certificate for shipments of bulk chemicals shall state contract number, drawing or specification number, lot number, rail car number if shipped by rail or trailer number if by truck, and the date of shipment.

(d) Any demurrage accrued as a result of detaining commercial carriers because of nonreceipt of the certificate shall be the responsibility of the Contractor.

(e) Failure to provide certification at the time of shipment may result in material being rejected and returned at the contractor's expense.

## INSPECTION AND ACCEPTANCE TERMS

Supplies/services will be inspected/accepted at:

CLIN	INSPECT AT	INSPECT BY	ACCEPT AT	ACCEPT BY
0001	Destination	Government	Destination	Government
0002	N/A	N/A	N/A	N/A
0003	Destination	Government	Destination	Government
0004	N/A	N/A	N/A	N/A
0005	Destination	Government	Destination	Government
0006	N/A	N/A	N/A	N/A
0007	Destination	Government	Destination	Government
0008	N/A	N/A	N/A	N/A
0009	Destination	Government	Destination	Government
0010	N/A	N/A	N/A	N/A

## DELIVERY INFORMATION

CLINS	DELIVERY DATE	UNIT OF ISSUE	QUANTITY	FOB	SHIP TO ADDRESS
0001	365 DAYS ADC	Hundred Pounds (CWT)	10,550	Dest.	N00174 NAVSEA INDIAN HEAD SCALES, BUILDING #1104 101 STRAUSS AVE. INDIAN HEAD MD 20640-5035 <b>ATTN: Kathy McGhee, Code 2320F 301-744-2437</b>
0002	365 DAYS ADC	Lot	1	Dest.	Same as CLIN 0001
0003	365 DAYS After Exercise of Option	Hundred Pounds (CWT)	10,550	Dest.	Same as CLIN 0001
0004	Same as CLIN 0003	Lot	1	Dest.	Same as CLIN 0001
0005	Same as CLIN 0003	Hundred Pounds (CWT)	10,550	Dest.	Same as CLIN 0001
0006	Same as CLIN 0003	Lot	1	Dest.	Same as CLIN 0001
0007	Same as CLIN 0003	Hundred Pounds (CWT)	10,550	Dest.	Same as CLIN 0001
0008	Same as CLN 0003	Lot	1	Dest.	Same as CLIN 0001
0009	Same as CLIN 0003	Hundred Pounds (CWT)	10,550	Dest.	Same as CLIN 0001
0010	Same as CLIN 0003	Lot	1	Dest.	Same as CLIN 0001

PRICE HISTORY OF ITEM – PGDN

Quantity: 12,660 HP Unit Price: \$13.75 Total Price: \$174,075.00

Option Awarded: January 8, 2003

**ATTACHMENTS IN PDF FORMAT ARE AS FOLLOWS:**

1. Test Sample Requirement
2. Statement of Work
3. Specification 174-115, Rev 3
4. Past Performance Matrix
5. Past Performance Evaluation Sheet

**IHD 76 - INDIAN HEAD DIVISION, NAVAL SEA SYSTEMS COMMAND, HOURS OF OPERATION AND HOLIDAY SCHEDULE (NAVSEA/IHD) FEB 2000**

1. The policy of this station is to schedule periods of reduced operations or shutdown during holiday periods. Deliveries will not be accepted on Saturdays, Sundays or Holidays except as specifically requested by the Naval Sea Systems Command. All goods or services attempted to be delivered on a Saturday, Sunday or Holiday without specific instructions from the Contracting Officer or his duly appointed representative will be returned to the contractor at his expense with no cost or liability to the U.S. Government.

2. The scheduled holidays for Indian Head Division, Naval Sea Systems Command are:

<b><u>HOLIDAY</u></b>	<b><u>DATE OF OBSERVANCE</u></b>
New Year's Day	01 January (Tuesday)*
Martin Luther King's Birthday	21 January (Monday)*
President's Day	18 February (Monday)*
Memorial Day	28 May (Monday)*
Independence Day	4 July (Wednesday)*
Labor Day	3 September (Monday)*
Columbus Day	15 October (Monday)*
Veteran's Day	12 November (Monday)*
Thanksgiving Day	22 November (Thursday)*
Christmas Day	25 December (Tuesday)*

\* If the actual date falls on a Saturday, the holiday will be observed the preceding Friday. If the holiday falls on a Sunday, the observance shall be on the following Monday.

3. The hours of operation for the Contracts Division and Receiving Branch are as follows:

<b><u>AREA</u></b>	<b><u>FROM</u></b>	<b><u>TO</u></b>
Contracts Division (BLDG. 1558)	7:30 A.M.	4:00 P.M.
Receiving Branch (BLDG. 116)	7:30 A.M.	11:00 A.M.
	12:30 P.M.	2:00 P.M.

If you intend to visit the Contracts Division, it is advised that you call for an appointment at least 24 hours in advance.

PRE-QUALIFICATION SAMPLE TESTING  
FOR PGDN MIXED ACID

SCOPE:

This test plan covers the test methods and acceptance criteria for PGDN Mixed Acid used in the Biazzi Nitration process at the NAVSEAIHMD.

REFERENCE DOCUMENTS:

ASTM Standards:

D891: Standard Test Methods for Specific Gravity

Local Specification:

#174-115, Revision 3                      PGDN Mixed Acid

Military Specifications and Standards:

JAN-A-183                      Acid, Nitric (For Ordnance Use)

JAN-A-179                      Acid, Sulfuric, and Oleum

NCZ 1.4                      Sampling Procedures and Tables for  
Inspection by Attributes

MIL-STD-129                      Marking for Shipment and Storage

DOD-P-82671 (OS)                      Propylene Glycol Dinitrate

TEST METHODS and ACCEPTANCE CRITERIA

- a. Refer to Local Specification #174-115  
Revision 3 for all required test methods for the analysis of the mixed acid.
- b. The mixed acid samples shall undergo trial nitrations for PGDN.
- c. The Acceptance Criteria for each sample submitted shall be evaluated according to the following criteria's

RAW MATERIALS:

- 1) Nitric Acid per JAN-A-183 Class B
- 2) Sulfuric Acid per JAN-A-179 Grade I

PGDN MIXED ACID: (per Local Specifications #174-115 Revision 3)

- 1) Specify Gravity
- 2) Composition of Mixed Acid
- 3) Trace Metals
- 4) Organic and TNT nitro bodies
- 5) Chloride in the PGDN Mixed Acid



TEST METHODS and ACCEPTANCE CRITERIA (continued)

- 6) Trial Nitration of Mixed acid- The results of trial nitrating propylene glycol with the mixed nitrating acid shall not exceed the following:  
Separation time (sec) – 400 maximum and change in Redox (mV)-85 maximum.

The propylene glycol dinitrate generated shall be conform to DOD-P-82671 (OS)

Final acceptance of the Pre-Qualification Sample Test submitted is contingent upon the successful completion of all tests outlined in this section.

SAMPLING:

Mixed nitrating acid samples shall be obtained from a mixture of nitric acid per JAN-A-183 Amendment 2 for class B and sulfuric acid per JAN-A-179 Grade I.

RECEIPT OF SAMPLE:

Deliver qualification samples to the following address:

PHYSICHEM DIVISION, CODE 310  
BUILDING 1864, ATTN: KARRIE SANDAGGER  
NAVSEAIHMD  
101 STRAUSS AVE.  
INDIAN HEAD, MD. 20640-5035

SAMPLE SIZE:

Sample size shall be **two** each **1** gallon containers for each vendor. The samples submitted shall be in a glass acid resistant bottle with Teflon closure. The amount of headroom in the sample bottle shall be kept to a minimum. Code 310 shall distribute the individual samples to NAVSEAIHMD laboratories for analysis.

SAMPLE LABELING:

Label sample per MIL-STD-129 for shipment and storage. Include the Request for Bid number (RFQ), local specification number and manufacture's name with each sample submitted.

CERTIFICATE OF ANALYSIS:

Each sample provided shall have a certificate of analysis.

MATERIAL SAFETY DATA SHEET (MSDS):

Each sample provided shall have a MSDS.

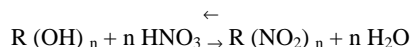
STATEMENT OF WORK FOR THE PROCUREMENT  
OF PGDN MIXED ACID

**PURPOSE:** This document contains information necessary to procure PGDN mixed nitrating acid for the Indian Head Division, NAVSEA, and Indian Head MD 20640-5035.

**INTRODUCTION:**

**BACKGROUND:**

Mixed nitrating acids are used in the production of nitrate esters at the Indian Head Division, NAVSEA. Mixed nitrating acid is made up of sulfuric (H<sub>2</sub>SO<sub>4</sub>) and nitric (HNO<sub>3</sub>) acids. The mixed acid is one of the raw materials necessary for the esterification reaction to take place. The reaction is an esterification of polyol with nitric acid.



As water is formed during the reaction, a dehydrating medium must be added to avoid dilution of the nitric acid. The sulfuric acid in the mixed nitrating acid is the dehydration medium. The following nitrate esters are produced at NAVSEAIHMD: Nitroglycerine (NG), Propylene Glycol Dinitrate (PGDN), Triethylene Glycol Dinitrate (TEGDN), Trimethylolethane Trinitrate (TMETN), and Butanetriol Trinitrate (BTTN).

These materials are classified by the Department of Defense as Class 1, Division 1 (mass detonating), therefore, it is imperative that our mixed nitrating acid supplier consistently manufacture a high quality mixed nitrating acid. Chemical instability of these materials can result in severe damage to facilities and death to personnel.

**MIXED NITRATING ACID REQUIREMENTS:**

**COMPOSITION OF MIXED NITRATING ACIDS:**

The composition of PGDN mixed acid and grade of nitric acid and oleum (sulfuric acid) used in the manufacture of PGDN mixed acid are detailed in the local specification. The table below lists the type of mixed acid and its corresponding local specification number:

Type of Mixed Acid	-----PGDN
Local Specification	-----174-115 Revision 3

The local specification also details the testing methods and procedures, certificates of analysis, and type of shipment configuration.

QUALITY ASSURANCE:

WITNESSING OF VENDORS ANALYSIS:

NAVSEAIHMD reserves the right to witness the analysis of the mixed nitrating acids at the vendors facility at any time during the life of the contract.

QUALITY DOCUMENTATION:

Contractor shall perform all inspection requirements according to Federal Acquisition Regulations (Far 52.246-2). Vendor shall notify in writing NAVSEAIHMD of any changes to the process, equipment, and raw materials which may affect the quality of the mixed nitrating acids throughout the life of the contract.

QUALITY PROGRAM REQUIREMENTS:

The vendor shall conform to the following military standards and specifications during the life of the contract:

MIL-STD-129 L	MARKING FOR SHIPMENT AND STORAGE
NCZ 1.4	SAMPLING PROCEDURES AND TABLES
	FOR INSPECTION BY ATTRIBUTES
JAN-A-179	ACID, SULFURIC AND OLEUM
JAN-A-183	ACID, NITRIC (FOR ORDNANCE USE)

MIXED ACID TRUCK FLEET:

MANAGEMENT OF TRUCK FLEET:

The vendor shall be responsible for management and cleaning of mixed nitrating acid truck tankers. Representatives of NAVSEAIHMD may meet with vendor and perspective shipper to discuss method of shipment after award of contract.

TANKER CAPACITY:

The truck tanker must be capable of delivering a minimum of 37,000 pounds/maximum of 45,000 pounds of acid.

TANK TRUCK CONFIGURATION:

We require truck tankers to be equipped with a 2 inch male camlock coupling, unload from the bottom using a pump. Each truck tanker shall be dedicated to delivering mixed acids containing nitric and sulfuric acid.

TRANSPORTATION REGULATIONS:

All truck tankers shall comply to regulations stated in the Department of Transportation's 49 CFR for transportation of hazardous materials.

#### MIXED ACID TRUCK FLEET (CONTINUED)

##### CLEANING:

We require the vendor to steam clean the tanker before vendor transfers material for shipment to NAVSEAIHMD. Vendor shall certify in writing truck tanker has been steam cleaned and submit a copy with truck shipment to NAVSEAIHMD. Shipments will not be accepted without written cleaning certification.

##### DETENTION CHARGES:

The truck tankers may incur delays once arriving at NAVSEAIHMD due to inclement weather, equipment problems, etc. The NAVSEAIHMD will endeavor to minimize delay. A minimum of two hours is necessary to safely transfer contents of each tanker to our storage tanks without charging to the government.

##### SPILL RESPONSIBILITIES:

Vendor is responsible for any hazardous spills that may occur during transport of mixed nitrating acids.

#### RECEIPT INSPECTION OF MIXED NITRATING ACIDS:

##### RECEIPT INSPECTION:

Mixed nitrating acid deliveries can enter the facility between the hours of 7:00 a.m. – 10:00 a.m. Monday through Thursday. In case of emergencies special permission can be arranged through the Production Controller to allow the trucks to arrive at alternate times.

##### INSPECTION AND WEIGHING OF TRUCK:

The truck tanker will proceed to the Explosive Scales, building 1104, to undergo inspection and weighing. Ordnance Management personnel will inspect the truck and tanker for the following: leaking flanges, deteriorating gaskets, broken valves, properly inflated tires, etc. In addition, the presence of Certificate of Analysis (CA) and Material Safety Data Sheet (MSDS), and DD250 will be verified. If a discrepancy is found, the government reserves the right to return the shipment to the vendor at not cost to the government.

##### FINAL ACCEPTANCE:

The shipment will then proceed to the Chemicals Operation Branch for off loading. The following will occur before transfer:

- a. A representative of the Chemicals Operation Branch shall inspect the certificates to confirm that the material meets the specifications. The truck will be directed to the acid storage farm upon final acceptance.

RECEIPT INSPECTION OF MIXED NITRATING ACIDS: (continued)

- b. The tanker truck will not be unloaded without the certificate of analysis. The government reserves the right to sample the mixed nitrating acid upon receipt of shipment for a laboratory analysis. The sample shall be taken by a Chemicals Operation Branch personnel. If the truck sample fails the government's analysis, the shipment shall be returned to the vendor at no cost to the government.
- c. The government reserves the right to perform any additional testing that is desired. If additional testing is required results will be reported to the vendor, including the batch or lot number.

**PAST PERFORMANCE QUESTIONNAIRE COVER SHEET  
FOR SOLICITATION NUMBER N00174-03-R-0032**

Name of offeror questionnaire is being completed for:

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Name of company completing questionnaire:

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Name of the person and title completing questionnaire:

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Length of time your firm has been involved with the offeror:

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Type of work performed by referenced offer:

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**SUBMIT PAST PERFORMANCE QUESTIONNAIRE TO:**

NAVSEA INDIAN HEAD, SURFACE  
WARFARE CENTER DIVISION  
101 Strauss Avenue, Bldg 1558  
Indian Head MD 20640-5035  
Patsy Kragh, Contract Specialist,  
Code 1142P  
BY: **CLOSING DATE OF SOLICITATION**

LOCAL SPECIFICATION 174-115 REVISION 3  
PROPYLENE GLYCOL DINITRATE MIXED ACID  
NSN: 6810-LL-IH4-6505

STOCK CARD TO READ: Propylene Glycol Dinitrate Mixed Acid in accordance with Specification 174-115 Revision 3.

1.0 DESCRIPTION OF SPECIFICATION

- 1.1 The nitric acid component of the mixed nitrating acid shall conform to JAN-A-183 Amendment 2 for Class B and oxides (HNOSO<sub>4</sub>). The sulfuric acid component of the mixed nitrating acid shall conform to JAN-A-179 Grade I. The Propylene Glycol Dinitrate (PGDN) Mixed acid shall conform to meet the requirements below:

COMPOSITION	MIN	MAX
Total Acidity, wt%	99.5	-
Actual HNO <sub>3</sub> , wt%	46.5	-
Actual H <sub>2</sub> SO <sub>4</sub> , wt%	-	52.8
HNOSO <sub>4</sub> , wt%	-	0.20
Dehydrating Value of Sulfuric Acid (DVS)	6.25	6.50

- 1.2 Wt% Total Acidity is defined as:

$$\text{wt\% total acidity} = \text{wt\% actual HNO}_3 + \text{wt\% actual H}_2\text{SO}_4 + \text{wt\% HNOSO}_4$$

- 1.3 Wt% Actual HNO<sub>3</sub> is defined as:

$$\text{wt\% actual HNO}_3 = \text{wt\% total HNO}_3 - (\text{wt\% HNOSO}_4 * 0.4959)$$

- 1.4 Wt% Actual H<sub>2</sub>SO<sub>4</sub> is defined as:

$$\text{wt\% actual H}_2\text{SO}_4 = \text{wt\% total H}_2\text{SO}_4 - (\text{wt\% HNOSO}_4 * 0.7718)$$

- 1.5 Wt% H<sub>2</sub>O is defined as:

$$\text{wt\% H}_2\text{O} = 100 - (\text{wt\% actual HNO}_3 + \text{wt\% actual H}_2\text{SO}_4 + \text{wt\% HNOSO}_4)$$

- 1.6 Dehydrating Value of Sulfuric Acid (DVS) is defined in the equation below:

$$\text{DVS} = \frac{\text{wt\% actual H}_2\text{SO}_4}{(\text{wt\% actual HNO}_3 * .1667) + \text{wt\% H}_2\text{O}}$$

1.7 Organic Contamination

The mixed nitrating acid shall have no TNT nitro bodies or any organic contaminants.

1.8 Trace Metals Contamination

The mixed nitrating acid shall be analyzed for trace metals during the First Article Test. The samples will be prepared in accordance with Methods 3010 and 6010 of Test Methods for Evaluating Solid Waste, 3<sup>rd</sup> Edition, SW-846, USEPA, Office of Solid Waste, September 1986. The mixed nitrating acid shall contain less than 100 mg/l of iron (Fe).

1.9 Chloride Contamination

The mixed nitrating acid shall have no chloride contamination present.

2.0 ANALYTICAL METHODS

2.1 Determination of wt% HNOSO<sub>3</sub> and wt% Total HNO<sub>3</sub> and H<sub>2</sub>SO<sub>4</sub>

The vendor shall use the method developed by the Physchem Division (Code 330), Laboratory Procedure # 3320.59, Enclosure (1), for analysis of the mixed and spent nitrating acids. No other procedure for analysis shall be accepted. These procedures were developed to ensure mixed nitrating acid to Indian Head Division, Naval Surface Warfare Center, Indian Head, MD 20640-5035, meets requirements stated above in section 1.0.

2.2 Determination of Specific Gravity

The specific gravity at 15.6/15.6 °C of the mixed nitrating acid shall be tested per ASTM Method D891 B.

2.3 Additional Testing

Indian Head Division, Naval Surface Warfare Center reserves the right to perform any additional testing that is desired. If additional testing is required the results will be reported on form (NSWC/IHD SSIC 8010). The RCN number and Lot Number must be included.



## 0 CERTIFICATIONS OF ANALYSIS

3.1 Three copies of a certified analysis of each shipment shall be furnished to the Indian Head Division, Naval Surface Warfare Center. The certified analysis shall contain the following: specific gravity, wt% actual  $H_2SO_4$ , wt% total  $H_2SO_4$ , wt% actual  $HNO_3$ , wt% total  $HNO_3$ , DVS, wt%  $HNOSO_4$ , and the wt%  $H_2O$  in mixed acid shall be reported for each shipment. Vendor shall indicate on certificate of analysis the grade and/or type of sulfuric and nitric acid used to manufacture the mixed nitrating acid. The material shall not be unloaded until certification is received. Failure to comply with this requirement shall result in the nonacceptance of the shipment.

## 4.0 SHIPMENT CONFIGURATION

4.1 Tankers used to transport mixed nitrating acid shall conform to Department of Transportation's CFR 49. The tankers shall not be used to transport other materials.

## 5.0 AGED PGDN SPENT ACID

5.1 Indian Head Division, Naval Surface Warfare Center's aged propylene glycol dinitrate spent acid will be as is. The spent nitrating acid analysis method shall be analyzed per sections 2.1 and 2.2. The certified analysis shall contain the following: specific gravity, wt% actual  $H_2SO_4$ , wt% actual  $HNO_3$ , wt%  $HNOSO_4$ , and wt% PGDN in spent nitrating acid shall be reported for each shipment. The typical composition of the spent acid is as follows:

COMPOSITION, wt%	NOMINAL RANGES	
Actual $HNO_3$	12.0	15.0
Actual $H_2SO_4$	65.0	71.0
PGDN	0.00	0.5
Total Acidity	81.0	87.0
$HNOSO_4$	4.20	6.40

## 6.0 APPROVAL FOR PROCUREMENT

NITRATION BRANCH (CODE 2820):

CHEMICALS DIV. (CODE 280):

MANU. TECH. DEPT. (CODE 26):

J. J. J. J. J. 8/9/93  
John Bell 8/12/93  
J. E. M. J. 8/16/93

I. Specific Gravity of Mixed Acid

- A. Measure the specific gravity at 15.6/15.6°C in accordance with ASTM D891 Method A or B. Report to the nearest 0.000 unit.

II. Determination of Total Sulfuric and Total Nitric Acid Content

- A. Apparatus:
1. Metrohm Titroprocessor
  2. Buret unit, 10 mL
  3. Glass pH indicating electrode
  4. Reference electrode with saturated LiCl in ethanol
  5. Beaker, 250 mL
  6. Buret, graduated, 50 mL
  7. Stirring motor
  8. Pipet, volumetric, 2 mL, 10 mL, 25 mL
  9. Flask, volumetric, 100 mL, 250 mL

- B. Material:
1. 0.5 M Cyclohexylamine (CHA) in methanol. Add 60 mL of CHA in a 1000 mL volumetric and dilute to a liter with methanol.
  2. 1.0 M Sulfuric Acid ( $H_2SO_4$ ). Dilute 24.52g of acid in less than 25 mL of water. Cool to 20°C and dilute to 250 mL with methanol. Make up fresh weekly.
  3. Methanol, HPLC, low acid.
  4. 1.2 N Sodium Hydroxide
  5. Potassium Hydrogen Phthalate (KHP), 99.95%

C. Procedure:

1. Place 20 mL of distilled water in a 100 mL volumetric flask. Stopper the flask and weigh.
2. Pipet approximately 1 mL of sample into the flask. Restopper the flask and weigh to determine sample weight.
3. Dilute with 70 mL of methanol and mix. Allow solution to cool to 20°C. Bring to volume with methanol.
4. Pipet 10 mL of solution into 250 mL beaker. Add 90 mL methanol and stir. Perform test in duplicate.
5. Titrate with 0.5 M CHA potentiometrically on the titroprocessor, measuring two equivalence points. The first equivalence point corresponds to the sum of the nitric acid and one-half the sulfuric acid. The difference between the first and second equivalence point corresponds to one-half the sulfuric acid. A method is described in Fig. 1.

6. Record the volume of CHA at each equivalence point to the nearest 0.001 mL. Figure 2 is a typical report of the calculation and curve. Formula are in Figure 3.

7. Record the temperature of the CHA. Correct the volume of CHA to the standard temperature, 22°C, by the following:

$V_c = V_t - V_t (0.001 (t - 22.0))$ , where

$V_c$  = corrected volume of CHA, mL

$V_t$  = volume of CHA at  $t$ , mL

$t$  = measured temperature, °C

The standard temperature is an average room temperature.

```

'Pa
date 93-07-03      time 13:05      0
MET U              102
Parameters
>titration parameters
  V step              0.10 ml
  titr.rate           20 ml/min
  signal drift        10 mV/min
  equilibr.time        26 s
  start V:            OFF
  pause               15 s
  meas.input:          1
  temperature         25.0 C
>stop conditions
  stop V:              abs.
  stop V              15 ml
  stop U              -25 mV
  stop EP              5
  filling rate        40 ml/min
>statistics
  status:             OFF
>evaluation
  EPC                 50 mV
  EP recognition:     all
  fix EPI U           OFF mV
  PK/HNP:             OFF
>preselections
  req.ident:          OFF
  req.sml size:       OFF
  activate pulse:     ON

```

Figure 1. Titroprocessor Method for Determination of Total Sulfuric and Nitric Acid

cu  
date 92-02-21 time 13:39  
start V 0.000 ml MET U  
2.0 ml/div dU=100.0 mV/div

date 92-02-21 time 13:39 7  
U(init) 493 mV MET U 102  
smpl. size 1.885 s id:1 899500  
EP1 4.463 ml 394 mV  
EP2 6.665 ml 150 mV  
RS1 60.003 %  
RS2 2.262 ml  
RS3 39.653 %  
mean( 2) +/-s s/%  
RS1 60.076 0.0106 % 0.02  
RS3 38.372 1.8116 % 4.72  
stop V reached

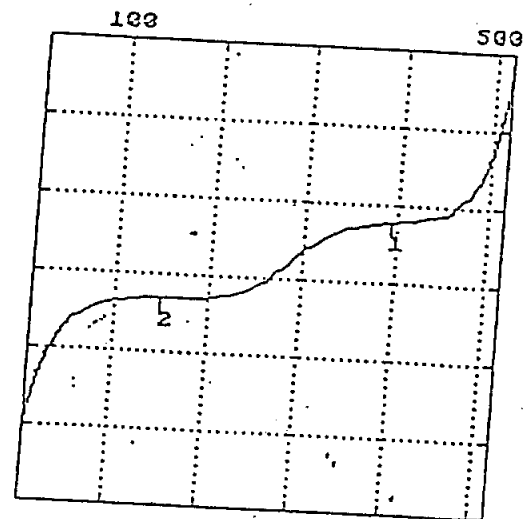


Figure 2. Typical Titration Report and Curve

```

> formula
  RS1=(EP2-EP1)*C001*C002/C000
  RS1 decimal places      3
  RS1 unit:                %
  RS2=EP1-(EP2-EP1)
  RS2 decimal places      3
  RS2 unit:                ml
  RS3=RS2*C003*C004/C000
  RS3 decimal places      3
  RS3 unit:                %
> common variables
> report
  report:full;curve;
> mean
  MN1=RS1
  MN2=RS3

```

C-formula	
C001	49.0388
C002	1.0492
C003	31.5065
C004	1.0468

Figure 3. Formula and Constants for Total Sulfuric and Nitric

8. Calculate the total sulfuric acid content (TS):

$$\text{Percent TS} = \frac{(\text{EP2} - \text{EP1}) \times \text{N2} \times \text{F}}{10\text{W}}, \text{ where}$$

EP1 = volume of CHA at first eq pt, mL,

EP2 = volume of CHA at second eq pt, mL,

N2 = normality of CHA at the second eq pt, eq/L,

F = equivalent weight of  $\text{H}_2\text{SO}_4$  (49.0388), g/eq,

W = weight of sample g.

9. Calculate the total nitric acid content (TN):

$$\text{Percent TN} = \frac{[\text{EP1} - (\text{EP2} - \text{EP1})] \times \text{N1} \times \text{F}}{10\text{W}}, \text{ where}$$

EP1 = volume of CHA at first eq pt, mL,

EP2 = volume of CHA at second eq pt, mL,

N1 = normality of CHA at first eq pt, eq/L,

F = equivalent weight of  $\text{HNO}_3$  (31.5065), g/eq,

W = weight of sample, g.

10. Report TS and TN to the nearest 0.01 percent.

D. Standardizations:

1. Sulfuric acid. Pipet 25 mL of 1.0 M  $\text{H}_2\text{SO}_4$  into a 250 mL beaker. Add 75 mL of water and stir. Add 5-10 drops of phenolphthalein and stir. Titrate with 1.2 N NaOH to the first pink end point. Run in triplicate. Report to the nearest 0.0001 eq/L. Checks should agree within 0.001 eq/L.

2. Calculate normality of  $\text{H}_2\text{SO}_4$  (NS):

$$\text{NS} = \frac{\text{V} \times \text{N}}{25.0}, \text{ where}$$

V = volume of  $\text{H}_2\text{SO}_4$ , mL

N = normality of NaOH, eq/L.

3. Sodium hydroxide. Dry KHP at  $105^\circ\text{C}$  for 2 hours. Weigh 15.0  $\pm$  0.5 g of KHP into a 250 mL beaker. Add 75 mL of water and stir to dissolve. Add 5-10 drops of phenolphthalein and titrate with NaOH to the first pink end point.

4. Calculate the normality of CH:

$$N = \frac{W}{V \times 0.20423}, \text{ where}$$

W = weight of KHP, g

V = volume of NaOH, mL.

4. CHA. Pipet 2.0 mL of 1.0 M H<sub>2</sub>SO<sub>4</sub> into each of three 250 mL beakers. Add 100 mL of methanol and stir. Titrate potentiometrically with CHA on the titroprocessor, measuring two equivalence points. (See Fig. 4.) The first equivalence point corresponds to the neutralization of the first sulfuric proton; the second point to the second proton. Correct the volume of CHA to standard temperature. Report the normality of CHA to the nearest 0.001 eq/L. Checks should agree within 0.001 eq/L.

5. Calculate normality of CHA:

$$N1 = \frac{NS \times VS}{EP1} \text{ and}$$

$$N2 = \frac{NS \times VS}{EP2 - EP1}, \text{ where}$$

NS = normality of H<sub>2</sub>SO<sub>4</sub>, eq/L,

N1 = normality of CHA at first eq pt, eq/L,

N2 = normality of CHA at second eq pt, eq/L

VS = volume of H<sub>2</sub>SO<sub>4</sub>, mL,

EP1 = volume of CHA at first eq pt, mL,

EP2 = volume of CHA at second eq pt, mL.

### III. Determination of Lower Oxides, nitrosylsulfuric acid, as HNOSO<sub>4</sub>

- A. Apparatus:
1. Flask, 125 mL
  2. Buret, 10 mL, 50 mL
  3. Pipet, 10 mL
  4. Graduated cylinder, 50 mL
  5. Stirring motor
  6. Hot plate
- B. Materials:
1. Sulfuric acid (96-98%)
  2. Potassium Permanganate, KMnO<sub>4</sub>
  3. Sodium Oxalate (99.95%)
  4. Sulfuric acid, 5% solution

```

'pa
date 93-07-08      time 13:05
MET U              101
Parameters
>titration parameters
  V step           0.10 ml
  titr.rate        30 ml/min
  signal drift     10 mV/min
  equilibr.time    26 s
  start V:         * OFF
  pause            15 s
  meas.input:      1
  temperature      25.0 C
>stop conditions
  stop V:          abs.
  stop V           15 ml
  stop U           -25 mV
  stop EP          5
  fill rate       40 ml/min
>statistics
  status:          ON
  mean             n= 3
  res.tab:         original
>evaluation
  EPC              50 mV
  EP recognition:  all
  fix EP1 U        OFF mV
  PK/HNP:          OFF
>preselections
  req.ident:       OFF
  req.smp1 size:   OFF
  activate pulse:  ON

```

```

'cf
date 93-07-08      time 13:05
C-fmla
C01                3.4715
-----

```

```

'de
date 93-07-08      time 13:05
def

```

```

>formula
  RS1=C01/EP1
  RS1 text
  RS1 decimal places RS1
  RS1 unit:          4
  RS2=EP2-EP1
  RS2 text
  RS2 decimal places RS2
  RS2 unit:          3
  RS3=C01/RS2
  RS3 text
  RS3 decimal places RS3
  RS3 unit:          4

```

```

>common variables
>report
  report:full;curve;
>mean
  MN1=RS1
  MN2=RS3
-----

```

Figure 4. Titroprocessor Method for Determination of Normality of CHA

C. Procedure:

1. Place 50 mL of distilled water into a 125 mL erlenmeyer flask.
2. Pipet 10 mL of sample into the water.
3. Add 10-15 mL of conc.  $\text{H}_2\text{SO}_4$  (96-98%) to the flask and heat (if necessary) to  $70^\circ\text{C}$ .
4. Titrate with 0.1 N  $\text{KMnO}_4$  to the first pink color which persists for 30 seconds. Perform in duplicate. Checks should agree within 0.02%. Report the oxides to the nearest 0.01 percent.
5. Calculate percent  $\text{HNOSO}_4$  (OX):

$$\text{OX} = \frac{V \times N \times 6.35}{W} \quad \text{where:}$$

V = volume of  $\text{KMnO}_4$ , mL

N = normality of  $\text{KMnO}_4$ , eq/L

W = weight of sample, g (specific gravity  $\times 10$ ).

D. Standardize:

1. Weigh 0.15 g of sodium oxalate into a 125 mL flask. Add 100 mL of 5%  $\text{H}_2\text{SO}_4$  and stir.
2. Titrate with 95% of the volume of  $\text{KMnO}_4$  required. Allow solution to decolorize.
3. Heat solution to  $60^\circ\text{C}$  on a hot plate.
4. Add  $\text{KMnO}_4$  dropwise until the first pink color which persists for 30 seconds. Perform in triplicate. Checks should agree within 0.001 eq/L. Report the normality to the nearest 0.0001 eq/L.
5. Calculate normality of  $\text{KMnO}_4$ :

$$N = \frac{W \times P}{V \times 0.06701} \quad \text{where:}$$

N = normality of  $\text{KMnO}_4$ , eq/L,

W = weight of sodium oxalate, g,

P = purity of sodium oxalate, %,

V = volume of  $\text{KMnO}_4$ , mL.



4-20-23

DOD-P-82671(OS)  
19 January 1979  
SUPERSEDING  
WS 2103 :  
30 July 1965

## MILITARY SPECIFICATION

## PROPYLENE GLYCOL DINITRATE

This specification is approved for use by the Naval Sea Systems Command, Department of the Navy, and is available for use by all Departments and Agencies of the Department of Defense.

## 1. SCOPE

1.1 Scope. This specification covers the requirements for one type of propylene glycol dinitrate (PGDN) for use in the manufacture of propellants.

## 2. APPLICABLE DOCUMENTS

2.1 Issues of documents. The following documents of the issue in effect on date of invitation for bids or request for proposal, form a part of this specification to the extent specified herein.

## SPECIFICATION

## MILITARY

DOD-P-82670

Propanediol, 1, 2

## STANDARDS

## MILITARY

MIL-STD-129

Marking for Shipment and Storage

MIL-STD-286

Propellants, Solid: Sampling,  
Examination and Testing

MIL-STD-1218

ACS Chemicals

(Copies of specifications, standards, drawings, and publications required by contractors in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer).

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commanding Officer, Naval Ordnance Station, Standardization/Documentation Division (501), Indian Head, MD 20640 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

THIS DOCUMENT CONTAINS 7 PAGES. ESC 9135

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2.2 Other publications. The following document forms a part of this specification to the extent specified herein. Unless otherwise indicated, the issue in effect on date of invitation for bids or request for proposal shall apply.

## CODE OF FEDERAL REGULATIONS

49 CFR 171- 190

Transportation

(The Interstate Commerce Commission Regulations are now a part of the Code of Federal Regulations (1975 Edition and Revisions) available from the Superintendent of Documents, Government Printing Office, Washington, DC 20401. Orders for the above publication should cite "49 CFR 100-199 (latest revision)").

(Technical society and technical association specifications and standards are generally available for reference from libraries. They are also distributed among technical groups and using Federal agencies.)

## 3. REQUIREMENTS

3.1 Material. The propylene glycol dinitrate shall be a product made from propanediol, 1, 2 which conforms to the requirements of DOD-P-82670.

3.2 Physical and chemical requirements. The physical and chemical properties of the propylene glycol dinitrate shall conform to the limits specified in TABLE I when tested as specified herein. If the lot fails to conform to any of the requirements specified, the lot shall be rejected.

TABLE I. Physical and chemical requirements.

Property	Requirements		Test method
	Minimum	Maximum	
Nitrogen (% by wt)	16.82	16.92	4.3.2
Acidity (as sulfuric acid) (% by wt)	-	0.001	4.3.3
Alkalinity (as sodium carbonate) (% by wt)	-	0.001	4.3.3
Moisture (% by wt)	-	0.50	4.3.4
Stability (potassium iodide at 82°C) (minutes)	10	-	4.3.5

3.3 Workmanship. The propylene glycol dinitrate shall be free from dirt, sediment, and other suspended foreign matter when examined visually by transmitted light.

#### 4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplies and services conform to specified requirements.

#### 4.2 Inspection provisions.

4.2.1 Lot formation. A lot shall consist of the propylene glycol dinitrate offered for acceptance at one time which has been produced by one manufacturer, at one plant, during a period of time not exceeding 20 hours, from the same materials, and under essentially the same manufacturing conditions provided the operation is continuous. In the event the process is a batch operation, each batch shall constitute a lot (see 6.5).

4.2.2 Sampling. Using a dipper made of rubber or an approved plastic, a sample of approximately 50 milliliters (mL) of propylene glycol dinitrate shall be removed from each lot. The sample shall be transferred to a stoppered bottle made of rubber or an approved plastic. The bottle shall be labeled to show the lot number and date of manufacture.

4.2.2.1 After disposal of the propylene glycol dinitrate from the sample bottle, the bottle shall be cleaned as follows:

- a. Rinse thoroughly with acetone.
- b. Flush generously with hot tap water (3 minutes under a direct flow is considered adequate).
- c. Rinse with distilled water and dry.

4.3 Quality conformance inspection. The material shall be subjected to all the following inspections and tests for acceptance. When specified in the contract (see 6.2), the supplier shall submit a report giving the results obtained for all inspections and tests performed and a certified statement that the lot meets all the requirements of this specification. Unless otherwise specified, all chemicals shall be ACS grade in accordance with MIL-STD-1218 and distilled water shall be used. Where applicable, blank determinations shall be run and corrections applied where significant.

4.3.1 Visual inspection. All samples shall be visually inspected to determine conformance to the workmanship requirement of 3.3.

4.3.2 Determination of nitrogen. Prepare the nitrometer as described by MIL-STD-286B, method 209.3.2. Wash the nitrometer generator using 25 mL of glacial acetic acid for each of two rinses. Expel all air

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From the stopcock and sidearm. Cap the sidearm. Add 2 mL of glacial acetic acid to the generator cup and draw it approximately three quarters of the way into the nitrometer. Weigh accurately to 0.1 milligram (mg) a sample containing  $0.70 \pm 0.05$  gram (g) of PGDN and transfer quantitatively to the generator cup. Draw the acid-sample mixture into the generator. Add a 2 mL portion of glacial acetic acid to the generator cup and draw the acid into the generator. Repeat the steps in the previous sentence using a second portion of acid. Add 25 mL of 94.5% sulfuric acid to the generator cup and draw the acid into the generator.

CAUTION: Any temperature rise should be avoided by regulating the rate of sulfuric acid addition. There is a color change from red to purple to yellow red during the addition of the acid and the subsequent steps of the procedure.

Close the top stopcock and immediately open the bottom stopcock. React the sample by gently shaking the top of the generator bulb holding the bottom end of the bulb as the axis.

CAUTION: The lower stopcock must be open until the gas has been generated and any temperature rise in the sample during the reaction must be avoided. Safety shields must be used.

Allow the generator to stand until the mercury settles. Drain the excess mercury until about 50 mm of mercury remain in the bottom of the generator

b. Close the bottom stopcock, shake the generator bulb vigorously 3 to 5 minutes, and allow the generator to stand for an additional 5 minutes. Vent any air from the reading tube, the stopcock, and the sidearm of the reading tube. Connect the generator to the reading tube with an airtight connection. Transfer the gas to the reading tube and adjust the mercury level in the compensatory tube to the calibration mark. Then adjust the mercury in the reading tube so that it is level with the calibration mark. Allow the system to come to equilibrium at ambient temperature, make a final adjustment of the mercury level, and read the gas volume.

#### Calculation:

$$\text{Percent nitrogen} = \frac{A}{W}$$

Where: A = reading of the mercury level on the measuring tube  
W = weight of sample (on the moisture-free basis), g

4.3.3 Determination of acidity and alkalinity. Place approximately 50 mL of distilled water into each of two 125-mL Erlenmeyer flasks and add ten drops of bromothymol blue indicator to each flask. Neutralize the contents of the flasks with either 0.01N acid or base to bring the

water to a neutralization point (yellow pH 6.0 - blue pH 7.6). A pale green color indicates the desired neutralization point. Weigh approximately 20 g of raw PGDN from a weighing bottle into one of the flasks. Allow the sample to enter along the inner sides of the flask. Record weight of the sample to the nearest 0.1 mg. Gently mix the PGDN and water with a swirling action. Note any change in color due to the indicator change. Compare the flask containing the PGDN with the blank flask. If the PGDN flask is blue, titrate with standard acid to the neutral point. If the PGDN flask is yellow, titrate with standard base. Use the color of the blank flask to compare the color for the end point. The desired end point is a pale green color.

Calculation:

$$\text{Percent acidity as H}_2\text{SO}_4 = \frac{(\text{mL base} \times \text{normality of base}) \times 4.9}{\text{Sample weight, g}}$$

$$\text{Percent alkalinity as Na}_2\text{CO}_3 = \frac{(\text{mL acid} \times \text{normality of acid}) \times 5.3}{\text{Sample weight, g}}$$

4.3.4 Determination of moisture content. To the titration flask add 75 to 100 mL of methanol. Titrate the methanol to a potentiometric end-point with stabilized Karl Fischer reagent. Transfer an accurately weighed sample of propylene glycol dinitrate (5 to 15 g) to the titration flask. Titrate the sample to a potentiometric end-point.

Calculation:

$$\text{Percent moisture content} = \frac{100 (KF)}{W}$$

where:

K = mL of Karl Fischer reagent used in titration  
F = reagent factor (g of water per mL of reagent)  
W = weight of propylene glycol dinitrate, g

4.3.5 Determination of stability. Filter a portion of the propylene glycol dinitrate sample through two thicknesses "S. and S." Number 604 filter paper or equivalent. Transfer a 2 mL portion of the filtered material by means of a pipette, to each of three test tubes which are 140 mm long, 13 mm internal diameter and 16 mm outside diameter. Care should be taken during the transfer not to leave droplets of the propylene glycol dinitrate on the sides of the test tubes. Stopper each tube by means of a new, tightly fitting cork through which passes a tightly fitted glass rod equipped with a platinum holder for a strip of standard potassium iodide starch-indicator paper. Using forceps, hang a strip of standard potassium iodide starch-indicator paper on the platinum holder. The standard potassium iodide starch-indicator test paper shall normally be approximately 25 mm long and 9.5 mm wide. Moisten a horizontal section in the upper half of the standard test paper with a 50 percent by volume solution of pure glycerin in distilled water. This is

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conveniently accomplished by dipping a small diameter glass rod into the glycerin-water solution, and as the rod is withdrawn, making contact with the side of the container so as to minimize the volume of the solution adhering to the rod. Draw the rod across the paper strip so as to produce a level and distinct line of demarcation on the lower edge of the wet area. Prepare a blank by suspending a moistened strip of the standard test paper in a clean dry tube. Adjust the temperature of the heat tube bath to  $82.2^{\circ} \pm 1^{\circ}\text{C}$  and insert all four test tubes into the heating solution. The depth of immersion of the test tubes into the heating solution should be approximately 50 mm. The bath should be placed in such a position that the test tubes are viewed against a white background illuminated by bright diffused daylight. Note the time of insertion of the tubes into the bath. During the test, the line of demarcation on the standard test paper should be 76 mm above the level of the propylene glycol dinitrate in the test tube. The line of demarcation in the blank tube is regulated at an equivalent height in the tube. Consider the end-point of the test to be the first appearance of any discoloration at the line of demarcation between the wet and the dry portion of the test paper in the sample tube which is in excess of the discoloration observed at the same position on the test paper in the blank. Note the time for completion of the test to the nearest minute. Consider the minimum time for the three tubes to represent the heat test value of the sample. After the test, rinse all rods and tubes with acetone to remove the propylene glycol dinitrate. Wash with warm soapy water, rinse thoroughly with tap water, then with distilled water and dry in a steam oven at approximately  $90^{\circ}\text{C}$ .

4.3.6 Rejection criteria. Failure of any sample to meet any requirement of this specification shall be cause to reject the lot or batch.

## 5. PACKAGING

### 5.1 Packing.

5.1.1 Level C. Propylene glycol dinitrate is classed as a "Forbidden Explosive" by Section 49 of the Code of Federal Regulations (CFR). For shipment by public highways, the appropriate section of Section 49 of the CFR shall be followed.

5.2 Marking. The marking of interior packages and exterior shipping containers shall be in accordance with instructions contained in Section 49 of the CFR and in accordance with MIL-STD-129.

## 6. NOTES

6.1 Intended use. Propylene glycol dinitrate is intended for use as a propellant ingredient.

6.2 Ordering data. Procurement documents should specify the following:

### 6.2.1 Procurement requirements.

- a. Title, number and date of this specification
- b. Whether a certified analysis and/or a test report is required

6.2.2 Contract data requirements. The items of deliverable data which may be required by this specification are cited in 4.3.

Data RequirementApplicable DID\*

Test Report  
Certified Analysis

DI-T-2072  
-

\*DIDs (Data Item Descriptions/DD Form 1664) for the above data requirements are documented in the applicable ADL (Authorized Data List.) Such data will be delivered as identified on completed (numbered) DIDs when specified on DD Forms 1423 (Contract Data Requirements Lists) and incorporated into applicable contracts.

6.3 Safety precautions. The safety precaution requirements of the "Contractor's Safety Manual for Ammunition, Explosives, and Related Dangerous Material" (DOD 4145.26M) are applicable and should be specified in the contract or order as required by the Armed Services Procurement Regulations (ASPR) 1-323.

NOTE: When this specification is used as part of the description of work to be accomplished by a Government activity, the safety precaution requirements of "Ammunition and Explosives Ashore" (OP 5) should be made applicable.

6.4 Toxic effects. Toxic effects may occur from the inhalation of vapors from propylene glycol dinitrate or the absorption from direct contact with the skin.

6.5 Batch. A batch is defined as that quantity of propylene glycol dinitrate that has been subjected to the same unit chemical or physical process intended to make the final product homogeneous.

Custodian:  
Navy - OS

Preparing Activity:  
Navy - OS

Project Number:  
9135-N089

☆U.S. GOVERNMENT PRINTING OFFICE: 1979-803-022/1153

**PAST PERFORMANCE QUESTIONNAIRE INTERVIEW SHEET**  
**SOLICITATION NUMBER: N00174-03-R-0032**

**RATING SCALE**

Please use the following ratings to answer the questions. If you are unable to rate an item because it was not a requirement, never an issue, or you have no knowledge of the item in question then you should mark "N/A".

**EVALUATION CRITERIA**

- |                    |                                                                                                                                                                                                                                                                                                                   |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Excellent -</b> | The offerors performance was consistently superior.<br>The contractual performance was accomplished with<br>Few minor problems for which corrective action taken<br>By the contractor were highly effective.                                                                                                      |
| <b>Good -</b>      | The offerors performance was good, better than average,<br>Etc., and that they would willingly do business with the<br>Offeror again. The contractual performance was<br>Accomplished with some minor problems for which<br>Corrective actions taken by the contractor were effective.                            |
| <b>Neutral -</b>   | No record exists.                                                                                                                                                                                                                                                                                                 |
| <b>Poor -</b>      | The offerors performance was entirely unsatisfactory<br>And that they would not do business with the offeror<br>again under any circumstances. The contractual<br>performance of the element being assessed contains<br>problems for which the contractor corrective actions<br>appear to be or were ineffective. |



## **CUSTOMER SATISFACTION**

1. The referenced contractor was responsive to the Customers needs. E G N P N/A
2. The contractors personnel were qualified To meet the requirements. E G N P N/A
3. The contractors ability to accurately estimate Costs. E G N P N/A

## **TIMELINESS**

4. The contractors ability to ensure, to the extent of Its responsibility, that all tasks were completed within The requested time frame. E G N P N/A

## **TECHNICAL SUCCESS**

5. The contractor had a clear understanding of the work Detailed in the SOW. E G N P N/A
6. The contractors ability to complete tasks correctly the first time. E G N P N/A
7. The contractors ability to resolve problems. E G N P N/A

## **QUALITY**

8. The contractors quality and reliability of services delivered. E G N P N/A
9. Quality, reliability, and maintainability of hardware delivered. E G N P N/A

**PLEASE PROVIDE SUBJECTIVE REPONSES FOR THE FOLLOWING:**

10. Would you recommend this contractor for similar government contracts? Please explain:

11. Have you experienced special or unique problems with the referenced contractor that we should be aware of in making our decision?

12. In summary, which of the following would you choose to describe the quality of the referenced contractors service:

Significantly better than acceptable

Slightly better than acceptable

Acceptable

Slightly less than acceptable

Entirely unacceptable

13. In summary, which of the following would you choose to describe reference contractors willingness to cooperate to resolve performance disagreements:

Highly cooperative

Cooperative

Somewhat uncooperative

Highly uncooperative

Thank you for taking the time to complete the above information.

Interviewers Name: \_\_\_\_\_, Date \_\_\_\_\_.